

Green Thumb Newsletter

LAWRENCE A. LONG, President

DR. A. C. HILDRETH, Director

MARILYN HOLMES, Volunteer Editor

DENVER BOTANIC GARDENS, INC. • 909 YORK • Telephone: 297-2428 or 297-2632 • March, 1965

GARDENING MEMORANDA

Deciduous trees and shrubs, evergreens and woody vines can be planted as soon as the soil thaws and becomes workable. Make certain that the planting hole is large enough to contain the roots without cramping. The roots should be covered with a mixture of soil and organic matter such as leaf mold or peat. After backfilling nearly to the top thoroughly soak the soil with water to settle it around the roots. After the water has soaked away finish filling the hole.

Plant seeds of sweet peas, calendulas, cosmos, larkspur, and bachelor button in garden beds about the middle of the month if the ground is not frozen.

Prepare beds for annuals as soon as the soil can be worked. Apply two or three inches of peat, leaf mold or well composted manure and work deeply into the soil.

An early **spring application of manure or manure-peat mixtures to lawns** is a common practice in our area. Whether this is a worth while practice is debatable. The quantity of nutrients in manure is slight as compared with modern chemical fertilizers. The organic matter applied to the surface of a lawn is probably not very beneficial although it is invaluable for incorporating into the soil in preparation for seeding or sodding a new lawn. Certainly the use as a top dressing of manure will not endear you to your neighbors.

ANNOUNCEMENTS

The PLANT SALE Committee wishes to STRESS that it is important for those volunteering for **sales personnel** and other assignments to **call now** so that we may plan ahead. Please telephone Mrs. John Haney at 388-0602 — we need help from everybody. (Especially needed are sales clerks who are familiar with house plants. Dr. Helen Zeiner and Mr. Ernest Bibee, Conservatory Superintendent, are selecting a fascinating list of plants.) All Committees will have lists of plants and briefing sessions will be held in late March or April. ALSO, NOW, we solicit —we need promises—plant donations from home gardens. For information, call Mrs. Jesse Gibson, 794-0191.

On Tuesday, March 16, the second in a series of basic courses on botany will begin. Mr. Joseph Oppe, Botanist Horticulturist, will teach this course. The course will cover the plant kingdom from the algae to the flowering plants. Classes will be held on March 16, 24 and 30 and April 6 from 9:30 to 11:00 a.m. It is open to all and is especially recommended for Associates wishing to be guides of the Botanic Gardens. Please telephone Botanic Gardens House (297-2428) to register.

Welcome to the following new members of Denver Botanic Gardens: Mr. and Mrs. Charles H. Booth, Mrs. Randolph P. McDonough, Mrs. Robert McKenna, Mrs. F. M. Scott, Mildred Sienfried, Mrs. C. A. Perrigo, Joseph S. Davis, Mr. and Mrs. Martin Chadwick, Mr. and Mrs. Bruggentheis, Harveyette Harvester Garden Club, Gertrude E. Miller, Mrs. Hugo Wangelin, George A. Hamilton, W. H. Wilson, Mr. and Mrs. Clarence Stevens, Mary Louise Riede, Mrs. James A. Mills, Johnstown Home and Garden Club, Carolyn A. Fuller, Morning Garden Club of Greeley, Edward P. Gueguen, Matt Mateyka, Winston S. Howard.

Our apologies to these members whose names were omitted from the annual roster: Mrs. Frank King, Mrs. Paul W. Kiesling, Mr. and Mrs. Rex Jones, Mrs. Walter K. Koch, Mrs. Robert Calfee, Boulder, Richard Armstrong, Boulder and to Dr. E. H. Brunquist for misspelling his name.

AN EXCITING LECTURE IS COMING UP

Co-sponsored by Denver Botanic Gardens and the Department of Botany, University of Denver, Dr. William A. Weber, plant taxonomist and curator of the Herbarium of the University of Colorado Museum, will present "FOLLOWING CHARLES DARWIN TO THE ENCHANTED ISLANDS." The lecture, illustrated with slides, is his personal account of the Galapagos International Scientific Project. **March 25th** is the date; **8:00 p.m.** the time; and, the **Boettcher Center Auditorium** (2050 E. Iliff Ave. at Vine) the place. Admission will be 75¢ to adults, 25¢ to students and free to children under 12.

Tickets are available now at Botanic Gardens House or by mail with a return envelope and check to Associates of Denver Botanic Gardens, 909 York St., Denver, Colorado 80206.

"The Galapagos International Scientific Project was undertaken January 7 to March 18, 1964 by the University of California. Cooperating agencies were the California Academy of Sciences, National Science Foundation, Charles Darwin Foundation, Unesco and others. Travel to and from the islands was made possible by an arrangement with the California Maritime Academy, whose spring cruise took place at the same time.

The purpose of the project was to dramatize the continuing need for study of the islands from the standpoint of their geologic origin and the flora and fauna which has made the islands so justly famous. To this end the Darwin Research Foundation has established a permanent field station for visiting investigators and has undertaken a treaty with the government of Ecuador, which owns the archipelago, for protection of certain areas where the rare giant tortoises, flightless cormorants, land and marine iguanas, Galapagos hawk and Galapagos penguin still survive in small numbers.

Some 58 scientists, assistants, divers and clerical assistants spent 6 weeks at the Darwin Research Station studying a variety of problems and were aided by the Ecuadorean and United States Navy and local fisherfolk in excursions to the 18 or more islands in the group. Among the scientific personnel were specialists studying vulcanism, paleomagnetism, marine invertebrates, fossils, birds, climatic phenomena, ocean currents, behavior of sea lions, sea anemone poisons, soils, insect-plant relationships, corals, continental drift, solar distillation of seawater for local use and bird behavior."

Dr. Weber made a field study of lichens and bryophytes on the islands; these groups of plants had never been studied here before, although the area is a lichenologist's paradise, receiving most of its scant moisture as fog, which can be picked up by these plants from the air. Among other things, it was discovered that tortoises support lichens on their shells.

CALENDAR OF EVENTS

THE MONTH OF MARCH

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|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1) 7:30 p.m. Swingle Study Group | 16) 9:30 a.m.—11:00 a.m. Basic Botany Course |
| 2) 9:30 a.m.—11:00 a.m. Basic Botany Course
11:00 a.m. Gift Shop Committee | 1:00 p.m. Rocky Mountain African Violet Council
8:00 p.m. Cherry Hills Men's Garden Club |
| 4) 10:00 a.m.—3:00 p.m. Handcraft workshop for gifts
7:45 p.m. Orchid Society | 17) 9:30 a.m. Fun with Flowers |
| 8) 10:00 a.m. Judge's Council
1:00 p.m. DBG Guild Board Meeting | 18) 10:00 a.m. Around the Seasons
7:30 p.m. Dahlia Society |
| 9) 9:30 a.m.—11:00 a.m. Basic Botany Course
10:00 a.m. Herbarium Study Group
6:00 p.m. Kibitzers | 19) Denver Federation of Federated Women's Clubs —
Tea
7:30 p.m. Botany Club |
| 10) 9:15 a.m. DBG Guild
12 Noon Colorado Garden Show Board
2:00 p.m. Editorial Committee | 23) 9:30 a.m.—3:30 p.m. County Agents Custodial
Workshop |
| 11) 7:30 p.m. Rose Society | 24) 9:30 a.m.—11:00 a.m. Basic Botany Course |
| 12) Colorado Federation of Garden Clubs State Board
Meeting | 25) 1:00 p.m. Civic Garden Club
8:00 p.m. Lecture by Dr. William A. Weber,
Boettcher Center Auditorium,
2050 East Iliff Avenue |
| 14) Denver Women's Business Club
3:00—5:00 p.m. | 26) 10:00 a.m. Ikebana International |
| 15) 9:30 a.m. Plant Sale Committee
4:00 p.m. DBG Board of Trustees | 28) 2:00 p.m. Colorado Cactophiles |
| | 30) Colorado Garden and Home Show — through April
4, Denver Coliseum and National Western Bldg. |

MARCH NEWSLETTER

DENVER BOTANIC GARDENS, INC.

909 York Street, Denver, Colorado 80206

Non-Profit Org.

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Denver, Colorado

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DENVER BOTANIC GARDENS, INC.

• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

APRIL, 1965

GARDENING MEMORANDA

Deciduous and evergreen trees and shrubs can be pruned. The pruning of spring flowering shrubs, such as lilac and forsythia, should be postponed until after the blooming period to insure a maximum of flowers.

Inspect your deciduous shrubs and trees, particularly the cotoneasters, lilacs, elms and maples, for scale infestations. Scale insects can be controlled by spraying with dormant oil.

Begin planting bare-root roses the first of April if the soil is workable. Potted roses should be used if planting is delayed until after the middle of May. Select a planting site with good drainage and away from the competing roots of other trees and shrubs. Dig a hole large enough to contain the roots without cramping. Cover the roots with a mixture of 30% peat, 20% well-rotted cow manure and 50% soil. After backfilling, thoroughly soak the soil with water. After planting and watering, mound the soil 8 to 10 inches high around the canes. This mound should be kept moist and can be removed during the middle of May or when the danger of killing frosts is past.

ANNOUNCEMENTS

On Friday, April 16 at 8:00 p.m. and Saturday, April 17 at 2:00 p.m., at Botanic Gardens House, Mr. H. L. Gibson, Sales-Service Division, Eastman Kodak Co., Rochester, N. Y., will give an illustrated lecture on "The Techniques of Plant Photography". Mr. Gibson is in charge of nature photography for the Eastman Kodak Co. He is a member of many photographic societies including: Royal Photographic Society; Fellow, Photographic Society of America; Fellow, Past President, Biological Photographic Association. Mr. Gibson has received many international honors in nature and biological photography. Among

these is the Lewis Schmidt Award for contributions to the science of biological photography. This is such a high award that only five or six have ever been granted.

There will be approximately 40 tickets available to each of the two lectures. Admission is free; tickets must be picked up in advance at Botanic Gardens House; capacity limited.

The Annual Dahlia Tuber Auction for the benefit of the Denver Dahlia Society will be held April 22, 7:30 p.m. at Botanic Gardens House. The public is invited.

The Denver Gladiola Society will hold a gladiola corm auction at Botanic Gardens House at 7:30 p.m. on Tuesday, April 13. The public is invited.

In Colorado, this year, Arbor Day will be celebrated on Friday, April 16.

The Fourth Annual African Violet Show: "Hi Country Violets" will be held Saturday and Sunday, April 24 and 25, at the Heart O' Denver Motel Mural Room, 1100 E. Colfax Avenue, Denver. This show is presented by the Rocky Mountain African Violet Council. Show times are: Saturday, 1:00 p.m. to 8:00 p.m. and Sunday, 1:00 p.m. to 6:00 p.m.

We are very happy to welcome the following people to membership in Denver Botanic Gardens: Mrs. Ivan Kohnfelder, Mr. & Mrs. Ray L. Machamer, Mrs. O. E. Haffner, Mr. & Mrs. Richard E. Gray, Mrs. Robert A. Wolff, Mrs. Ben R. Caldwell, Eva F. Bowers, Mr. George D. Heath, Mrs. J. B. Nunn, Mrs. Shirley C. Stout.

CALENDAR OF EVENTS
The Month of April

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|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 1) 7:45 p.m. Denver Orchid Society | 16) Arbor Day |
| 2) 1:00 p.m. Civic Garden Club Tea | 8:00 p.m. Mr. H. L. Gibson illustrated lecture on "The Techniques of Plant Photography". |
| 6) 9:30 a.m. Basic Botany Course | 17) 2:00 p.m. Mr. H. L. Gibson illustrated lecture on "The Techniques of Plant Photography". |
| 11:00 a.m. Gift Shop Committee | 20) 9:30 a.m. Basic Botany Course |
| 8) 7:30 p.m. Denver Rose Society | 21) 9:30 a.m. Fun with Flowers Workshop |
| 9) 8:00 p.m. Illustrated lecture by Dr. William Popejoy; Photographying House Plants. Sponsored by Rocky Mountain African Violet Council. | 22) 10:00 a.m. Plant Sale Information Briefing Committee - all Plant Sale Volunteers.
7:30 p.m. Dahlia tuber auction |
| 12) 10:00 a.m. Judges Council | 23) 10:00 a.m. Ikebana International
7:30 p.m. Men's Garden Club of Denver |
| 13) 9:30 a.m. Basic Botany Course | 25) 2:00 p.m. Colorado Cactophiles |
| 10:00 a.m. Herbarium Study Group | 26) 8:00 p.m. Alta Vista Garden Club.
Mr. Herbert Gundell speaker. |
| 7:30 p.m. Gladiola Society Corm Auction | 28) 9:30 a.m. Garden Club of Denver Workshop |
| 14) 9:15 a.m. Denver Botanic Gardens Guild | |
| 12:00 noon Colorado Garden Show Board | |
| 2:00 p.m. Reviewers Club Tea. Dr. Hildreth speaker. | |
| 2:00 p.m. Editorial Committee | |
| 15) 10:00 a.m. Around the Seasons Club | |

APRIL NEWSLETTER
DENVER BOTANIC GARDENS, INC.
909 York Street, Denver, Colorado 80206

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Denver, Colorado

Green Thumb Newsletter

LAWRENCE A. LONG, President

DR. A. C. HILDRETH, Director

DENVER BOTANIC GARDENS, INC. • 909 YORK • Telephone: 297-2428 or 297-2632 • MAY, 1965

GARDENING MEMORANDA

Clover mites are often a problem in people's houses at this time of year. This pest can be controlled by spraying the ground and the grass around the house for a distance of about 6 feet out from the wall. Use a mixture of 2 tablespoons of kelthane and 2 tablespoons of malathion to a gallon of water. Also use a much stronger solution of these ingredients and spray the house foundation and around the basement windows and windowsills. Spraying should be done when the day temperature is about 50 degrees. This process may have to be repeated.

The **planting date** for petunias, snapdragons and other of the "hardier" bedding plants will depend a great deal on the treatment they receive prior to planting. If they are moved directly from a warm greenhouse or house to the garden then they should not be planted until late in the season, perhaps as late as the end of May. On the other hand, if they were hardened-off by gradually exposing them to outside conditions, then they may be planted as early as May 10 to 15, depending on the season. If the gardener wishes to get a "head start", without taking steps to harden-off the plants, then he must be willing to take the chance of having them killed by a late frost.

Even though the past winter was a relatively "wet" one, April has been dry and lawns, perennial flowers, strawberries, shrubbery (especially evergreens) and trees will probably require **supplemental water**. Rather than guess at the moisture condition of the soil underlying plants, check it by inserting a strong metal object, such as a screwdriver, into the soil. After a little experience using this technique, you should be able to determine the depth to which moisture has penetrated the soil and also the amount of irrigation required.

Do not remove the foliage from tulips and other "bulbs" until after the leaves die down to the ground. Leaves are the "factories" in which food is produced for the plants. Food manufactured during the summer is stored in the "bulbs" during the winter and is used to produce new flowers and leaves in the spring. Do cut back the flower stalks as soon as the blooms fade.

Early tulips have been making a grand display in the test plantings of Denver Botanic Gardens. The main show will come later, perhaps the first week in May.

ANNOUNCEMENTS

Watch for the announcement of the advance sale of tickets for the 1965-66 Denver Botanic Gardens lecture series. The Education Committee, under the direction of Dr. Wayne G. Christian, is currently preparing a schedule of interesting, educational and informative lectures by qualified speakers. These lectures are intended to appeal to laymen as well as professional people.

Annual Plant Sale: Friday, May 7th, 12:00 noon to 6:00 p.m. Saturday, May 8th, 10:00 a.m. to 6:00 p.m. Sunday, May 9th, 10:00 a.m. to 3:00 p.m.

Convenience and customer service are being stressed at this year's Annual Plant Sale. Not only will a choice selection of plants go on sale a day earlier this year, but several innovations have been established to make shopping and browsing easier and more enjoyable.

A checking station under the evergreen trees in the southeast corner of the York Street Unit will be available for depositing purchases so that shopping may be continued without encumbrance.

More efficiently operated, centralized cashier stations, spotted on the perimeter of the Garden, will enable the shopper to pay for all purchases at one time. Boy Scouts will be present to assist in carrying plants and an automobile pick-up service will be set up on the 9th Avenue side of Botanic Gardens House. This facility will provide for direct loading into automobiles.

This will be fun for the whole family. The children may purchase gift plants in the especially designed Children's Booth. Luncheon will be served every day of the sale under colorful umbrella tables on the southwest terrace.

IKEBANA INTERNATIONAL ANNUAL EXHIBIT OF FLOWER ARRANGEMENTS. This exhibit of Japanese style arrangements is a highlight of the spring season and will be held at the Phipps Tennis House, 3300 Belcaro Drive (off of Exposition) on Wednesday, May 19th, 10:00 a.m. to 10:00 p.m. and Thursday, May 20th, 10:00 a.m. to 5:00 p.m. The public is invited. Admission: \$1.00.

This year the Ikebana workshops at Botanic Gardens House have been taught by Mrs. Taki-no Takamatsu of Denver, who has continued the study of the Moribana, a Japanese style with western influence originated by Unshin Chara, founder of the school of that name in Japan, and the classical Nageire, by more advanced styles. One of the unique aspects of the Ikebana is the emphasis on space and line so that even intricate arrangements give an impression of simplicity evocative of repose. The first exhibit held last May drew much interest and the forth-coming show promises to rival it, with steps forward. Co-chairmen for the event are Mrs. Alonzo Lilly and Mrs. Frank McLister. Mrs. Baxter Lanius is president of the Denver Chapter.

We are very happy to welcome the following people to membership in Denver Botanic Gardens: Mrs. John D. Benjamin, Darrel D. Murphy, Robert D. McPhee, Mrs. David C. Wilhelm, Katherine Cooley Gaskill, Mr. and Mrs. Lennart Wallden, Mrs. Q. W. Freshman, Harry L. Humphries, Mrs. Barry Bekins, Mr. and Mrs. Allan Perlmutter, Ken G. Wasson, Helen M. Body, Sybil D. Bates, David M. Anderson, Olive Russell, G. T. Swanby, Rosielec Molletti, Lanny R. Booth, Dora E. Kaufman, E. W. Bauman, Mrs. N. E. Kessler, Mrs. Sallie J. Ware, Mrs. Erich Kohlberg, Patricia M. Mitchell, Mrs. Thomas W. Bell.

CALENDAR OF EVENTS

THE MONTH OF MAY

- | | |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 4) All Day Flower Show School | 17) 4:00 p.m. Denver Botanic Gardens Board |
| 5) All Day Flower Show School | 18) 1:00 p.m. Rocky Mountain African Violet Council |
| 6) One-half Day Flower Show School
7:45 p.m. Orchid Society | 19) 9:30 a.m. Fun with Flowers |
| 7) Noon to 6:00 p.m. Annual Plant Sale | 20) 10:00 a.m. Around the Seasons
7:30 p.m. Dahlia Society |
| 8) 10:00 a.m.—6:00 p.m. Annual Plant Sale | 21) 7:30 p.m. Botany Club |
| 9) 10:00 a.m.—3:00 p.m. Annual Plant Sale | 23) 2:00 p.m. Colorado Cactophiles |
| 10) 10:00 a.m. Judges Council | 26) 9:30 a.m. Garden Club of Denver Workshop
12:00 noon Morning Glories Garden Club of Lakewood Picnic and tour |
| 11) 10:00 a.m. Herbarium Study Group | 12:00 noon Cherry Hills Garden Club Picnic and tour |
| 12) 9:15 a.m. Denver Botanic Gardens Guild
2:00 p.m. Editorial Committee | 28) 10:00 a.m. Ikebana International |
| 13) 7:30 p.m. Rose Society | |
| 14) 10:00 a.m. Reclamation Auxiliary | |
| 15) 10:00 a.m.—4:00 p.m. Ceramic Study Club | |

MAY NEWSLETTER

DENVER BOTANIC GARDENS, INC.

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JUNE, 1965

GARDENING MEMORANDA

Don't neglect your tulips, daffodils and hyacinths now that they are through blooming for the year. Keep the plants in good condition by cultivating, fertilizing and watering until the tops die naturally. Don't cut off the foliage. If you didn't cut off the flower stalks when the flowers faded, do it now. Seed production weakens the buds.

Prune spring-flowering shrubs after they have finished blooming.

Remove the old flower clusters from lilac bushes as soon as the flowers fade . . . This will improve the appearance of the bushes and increase their vigor.

As the weather warms up watch for aphids on roses, snowball bushes, delphinium, chrysanthemums and other shrubs . . . and perennials. Spider mites also increase rapidly as the temperature rises. They attack a wide variety of perennials, trees and shrubs including evergreens.

Watch Oriental poppies for thrips. They can cause serious damage before you know they are at work.

Malathion will control all three of these pests.

Flea beetles may be eating the leaves of young radishes, turnips, eggplant and other vegetables. Sevin will control this pest without making the vegetables unsafe for eating.

ANNOUNCEMENTS

TERRACE AND GARDEN TOUR: On Wednesday, June 23, under sunny skies, we hope, the Annual Garden and Terrace Tour will once again provide an opportunity to see some of Denver's most interesting gardens.

On exhibit this year are eight gardens. Mrs. Alfred C. Hicks, Mr. and Mrs. David Touff, Mr. and Mrs. Donald Robertson, Dr. and Mrs. Howard Suenaga, Mr. and Mrs. Donald Campbell, Mr. and Mrs. Erle Kistler, Dr. and Mrs. Max Kaplan and a complex of four gardens at 3130 South Monroe.

Tickets are \$3.00. Call now for your reservations. Mrs. Charles Arnold — 777-9404 or Mrs. Richard Kirk — 777-5868. Tickets are available at Botanic Gardens House and they may be purchased at the gardens on the day of the tour. Buses will depart from Botanic Gardens House at 10:00 a.m. and 2:00 p.m. Tickets \$1.00. Refreshments will be served at Mrs. Kistler's and experts will be available at each garden to lead tours on the hour.

ROSE SHOW — JUNE 20 — presented by the Denver Rose Society in the lobby of First National Bank of Denver — 1:30 to 5:30 p.m.

PRIMROSE SOCIETY — there is an effort being made by admirers of this plant to establish a Primrose Society

in Denver. Persons interested in joining may call Mrs. S. L. Heacock, 934-1506 for information.

Tours of the York Street Unit of Denver Botanic Gardens may be arranged by calling Mrs. Roberta Sawin, 424-0903. Gardens should be at their best from about June 15th. Tours may be scheduled from 10:00 a.m. to 4:00 p.m., Monday through Friday.

The 1965 Annual Plant Sale exceeded even the previously most successful sale in 1964. It was the best organized, most efficiently run sale held thus far.

Denver Botanic Gardens wishes to express sincere gratitude to all who worked so hard to make the Sale a tremendous success.

Watch for the announcement of the advance sale of tickets for the 1965-66 Denver Botanic Gardens lecture series. The Education Committee, under the direction of Dr. Wayne G. Christian, is currently preparing a schedule of interesting, educational and informative lectures by qualified speakers. These lectures are intended to appeal to laymen as well as professional people.

Welcome to Denver Botanic Gardens New Members: Mr. and Mrs. Clarence G. Wilkins, Donald W. Payne, Mr. and Mrs. Robert I. St. Clair, Mrs. Sam B. Hardin, Mrs. Philip M. Emery, Mrs. R. S. Barr, Mrs. Beverly R. Willbanks, Mrs. Pamela J. Anderson, Loay Winifred Boggess, Mr. and Mrs. Barney Brewer, Mrs. Tyler T. Dyer, Marguerite Eckman, Mrs. E. D. Egan, Isabella Gonzales, Mr. Jack L. Hansen, Louise G. Harmes, Mrs. F. L. Holm, Mr. Lawrence P. Hough, Mrs. Frank E. Kates, Jr., Mrs. Richard J. McCann, Mrs. Alan McDonough, Dr. R. N. McDowell, Carolyn K. McIntosh, Isla Montgomery, Mrs. Robert B. Morris, Mrs. Amy Muramoto, Mrs. John Nockels, Harold L. Parkinson, Ethel D. Peyton, Mrs. W. H. Wolfe. Many thanks to CLYDE LEARNED for convincing so many people they should become members of Denver Botanic Gardens.

1965 DENVER BOTANIC GARDENS COMMITTEES

Executive: Lawrence A. Long, Chairman, Mrs. George H. Garrey, Mrs. James J. Waring, Mrs. Ed. H. Honnen, Mrs. Frank McLister, John C. Mitchell and Aksel Nielsen.

Children's Garden: Dr. John R. Durrance, Chairman, Mrs. Giles Filley, Mrs. James C. Layden, Mrs. James J. Waring, Mrs. Anita McDonald and Dr. A. C. Hildreth.

Children's Garden Supervisors: Mrs. Anita McDonald, Chairman, Mrs. Joseph Craighead, Mrs. Edward Lupberger, Mrs. Howard W. Reynolds, Mrs. Robert Ebert, Mrs. Henry Goldstein, Mrs. T. D. Thompson, Mrs. Eddie Kawakami, Mrs. Joseph Habas and Mrs. John Coyte.

Editorial: Mrs. William H. Crisp, Chairman, Mrs. Alexander L. Barbour, Mrs. Hardin Holmes, Mrs. Norton Novitt, Mrs. J. V. Petersen, Mrs. James P. Steele, Jr., Mrs.

Edmund W. Wallace, Mrs. Lucian Long, Mrs. Charles L. Saunders, Dr. Helen Marsh Zeiner, Dr. A. C. Hildreth, Clyde E. Learned, Dr. Moras L. Shubert, Joseph W. Oppe, Editor.

Education: Dr. Wayne G. Christian, Chairman, Mrs. C. A. Perrigo, Dr. Helen Zeiner, Mrs. Robert Kosanke, Mrs. Clarke C. Bergeon, Mary Jo Giroux, Patrick J. Galavan, Father William T. Miller, Dr. Hugh Pote.

Entertainment: Mrs. Brown W. Cannon, Chairman, Mrs. Cass Herrington, Mrs. Charles C. Gates, Jr., Kenneth Wilmore.

Garden Tour: Mrs. Richard Kirk and Mrs. Charles Saunders, Co-Chairmen, Mrs. Charles Arnold, Mrs. Mackintosh Brown, Mrs. Schuyler Gray, Mrs. Robert L. Davis, Mrs. Thomas Payne, Mrs. R. L. Davis III, Mrs. Peter Neidecker, Mrs. Hardin Holmes, Mrs. Paul Hicks, Mrs. Robert Guthrie.

Gifts and Memorials: Mrs. Ed. H. Honnen, Chairman, Mrs. William Crisp, Mrs. James J. Waring, Mrs. J. Kernan Weckbaugh.

Herbarium: Dr. Helen M. Zeiner, Chairman, Mrs. Harracena Newman, Mrs. Randall Hughes, Mrs. Mary

Fuller, Mrs. J. P. Steele, Mrs. Walter Ash and Dr. E. H. Brunquist.

House Committee: Mrs. Frank McLister, Chairman, Mrs. George H. Garrey, Mrs. James J. Waring, Mrs. Jess Gibson, Mrs. Ed. Honnen and Mrs. Carl W. Tempel.

Library: Miss Lucy Crissey, Chairman, Mrs. Arthur Hellriegel, Mrs. Earl Wilson, Dr. A. C. Hildreth, Consultant. Other consultants: Clyde E. Learned, Roses; Edgar Sherman, Cacti and Jack Riley, Iris.

Membership: Mrs. William Stanley, Chairman, Mrs. Donald J. O'Connor, Mrs. Donald Robotham.

Nominating: John C. Mitchell, Chairman, Mrs. Brown Cannon, Mrs. George H. Garrey.

Planning: Dr. John R. Durrance, Chairman, Mrs. James J. Waring, John C. Mitchell, Dr. A. C. Hildreth, Aksel Nielsen, Ed Wallace (ex-officio).

Plant Sale: Mrs. Graham Morrison, Mrs. Theodore Washburne, Co-chairmen.

Finance: John C. Mitchell, Chairman. Names of other members have not yet been submitted.

CALENDAR OF EVENTS

MONTH OF JUNE

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|-------------------------------------------------|-----------------------------------------------------------------------|
| 3) 10:00 a.m. Gift Shop Work Shop | 16) 9:30 a.m. Fun with Flowers |
| 7:45 p.m. Orchid Society | 17) 7:30 p.m. Dahlia Society |
| 4) 11:00 a.m. Civic Garden Club Coffee-Election | 18) 7:30 p.m. Botany Club |
| 8) 10:00 a.m. Herbarium Study Group | 21) 9:30 a.m. Colorado Federation of Garden Clubs State Board Meeting |
| 9) 12:00 noon Colorado Garden Show Board | 25) 10:00 a.m. Ikebana International |
| 10) 7:30 p.m. Denver Rose Society | 27) 2:00 p.m. Colorado Cactophiles |
| 11) 9:30 a.m. Southern Hills Garden Club | 30) 9:30 a.m. Garden Club of Denver Workshop |
| 14) 10:00 a.m. Judges Council | |

JUNE NEWSLETTER

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JULY 1965

GARDENING MEMORANDA

The wet weather that prevailed during much of June provided ideal conditions for increased insect infestations on garden vegetable plants. Even though the gardener was diligent in his efforts at spraying, this was probably to little avail as the daily showers tended to wash the insecticides away before they had an opportunity to do any good.

The vegetable gardener should inspect his plants carefully for signs of insects. Examine the undersides of leaves and the tender growing tips of plants, as these areas are usually the first to be damaged by insects.

Malathion and Sevin are two insecticides that are very useful for controlling insects on vegetable plants. Both of these insecticides are low in toxicity to humans and other warm-blooded animals. In addition, their residual effect is rather short-lived which means that they can be applied closer to harvest than many of the other insecticides.

Malathion is particularly effective against aphids while Sevin provides good control of chewing insects. It is best to inspect plants to see what type of insects are present and then choose which of the two insecticides to use. If certain plants are effected with both aphids and chewing insects, it is possible to mix Malathion and Sevin together and apply both at the same time.

Tomato, cabbage, broccoli, Brussels sprouts, cauliflower, kohlrabi and green pepper should be sprayed with Malathion when aphid infestations occur. Cabbage worms, which are easily controlled with Sevin will be found feeding on cabbage, broccoli, Brussels sprouts, cauliflower and kohlrabi. Sevin is an effective control for fleabeetles which are often found eating the leaves of radishes and turnips.

Mexican bean beetles, which should be appearing in July, can be controlled with Sevin. The tomato hornworm can be controlled with Sevin or can be picked by hand and destroyed.

Since there are many different formulations of Malathion and Sevin on the market, it is impossible to give exact directions for the use of each and every one. However, each insecticide container will have explicit directions for use and these should be followed carefully.

June rains brought us abundant moisture. They also brought down from the air an appreciable amount of plant nutrients. Lawns responded gratefully to such luxury conditions. But these nutrients will not last long and the first summer application of fertilizer will be needed if it has not already been applied.

Assuming that your spring application was a complete fertilizer (one containing nitrogen, phosphorus and potash) it is probable that the grass now will need only a nitrogen fertilizer, such as ammonium sulphate. Use about 5 pounds to a thousand square feet of lawn. Apply only when the soil surface and grass are dry and water immediately to wash the fertilizer off the grass blades and into the soil.

Pale looking lawns will usually respond to an application of some iron compound such as iron chelate or iron sulphate. These may be mixed with the fertilizer. Use from 1 to 3 lbs. of iron sulphate to a thousand square feet. Keep iron compound away from walks and curbs of concrete or light colored brick and stone. Ugly brown stains!

ANNOUNCEMENTS

Educational Lecture Series: Tickets are now available for the Denver Botanic Garden 1965-66 Lecture Series which is sponsored by the Education Committee, Dr. Wayne G. Christian, Chairman. There are 6 interesting lectures scheduled, listed here. Season tickets are \$5.00 each and may be obtained at Botanic Gardens House. All lectures are scheduled to start at 8:00 p.m.

Wednesday, Sept. 15, 1965 - Boettcher Hall, D.U. campus: Dr. Richard Beidleman, Biology Department, Colorado College.

"Plains to Peaktops". A Colorado panorama.

Friday, October 22, 1965 - Treat Hall, Colorado Woman's College: Mr. Ladislaus Cutak, Missouri Botanical Garden. "Cacti and Succulents". Their care and culture.

Tuesday, Nov. 30, 1965 - Phipps Auditorium: Dr. Estella B. Leopold, Paleontology and Stratigraphy Branch of the United States Geological Survey. "Palynology".

Friday, Feb. 25, 1966 - Treat Hall, Colorado Woman's College: Dr. Ralph Baker, Colorado State University. Plant Pathology. Exploring extraterrestrial plant pathology and some projected biosatellite explorations.

Friday, March 25, 1966 - Treat Hall, Colorado Woman's College: Mr. Ernest Bibee, Superintendant, Boettcher Conservatory.

Review of the conservatory and some of its features and possibilities as an educational facility.

Friday, April 29, 1966 - Treat Hall, Colorado Woman's College: Mrs. Raymond Watts, Naturalist Emeritus, the Morton Arboretum. Subject to be announced later.

All of these lectures will be illustrated.

Gladiolus Society Annual Show - Sunday August 8, 1965. Denver-U.S. National Bank 2:00 - 6:00 p.m. Admission Free.

Northern Colorado Gladiolus Show - Greeley, Colorado. Sunday, August 1, 1965 2:00 - 6:00 p.m.

CALENDAR OF EVENTS Month of July

- | | | |
|-----|------------|------------------------------|
| 7) | 11:00 a.m. | Northglenn Garden Club |
| 12) | 10:00 a.m. | Judges Council |
| 13) | 10:00 a.m. | Herbarium Study Group |
| 14) | 9:15 a.m. | Denver Botanic Gardens Guild |
| | 2:00 p.m. | Editorial Committee |
| 15) | 7:30 p.m. | Dahlia Society |

- | | | |
|-----|------------|---------------------------------------------------|
| 16) | 7:30 p.m. | Botany Club |
| 19) | 4:00 p.m. | Denver Botanic Gardens Board |
| 23) | 10:00 a.m. | Ikebana International Men's Garden Club of Denver |
| 25) | 2:00 p.m. | Colorado Cactophiles |

Apologies to Mrs. Alexander L. Barbour whose name was unfortunately omitted from the list of members of the Library Committee.

We welcome the following new members to Denver Botanic Gardens: Mrs. G. Alvin

Williams, Aurora Public Library, Mrs. Emil W. Peters, Annie E. Kapell, Mr. & Mrs. E.K Teter, Mrs. T. H. Wrenn, Jr., Mrs. Philip C. Wilcox, Mrs. R. H. Riensche, Mrs. Joe D. Deason, Mr. & Mrs. Michael Carlile.

DENVER BOTANIC GARDENS, INC.
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Green Thumb Newsletter

LAWRENCE A. LONG, President

DR. A. C. HILDRETH, Director

MARILYN HOLMES, Volunteer Editor

DENVER BOTANIC GARDENS, INC.

• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

52 Lewis

AUGUST 1965

GARDENING MEMORANDA

The Iris is one of the few perennials planted in summer. July is the favorite month but June and August are also good for planting.

To divide irises dig the whole clump and shake off the soil. Break or cut the rhizomes so that each piece has at least one good "fan" of leaves attached to a good piece of rhizome. The young, outside fans with plump rhizomes are best. The old, weak middle portion of the clump should be thrown away. Cover the rhizomes lightly with soil.

If your annual planting seems to be growing poorly it may need pepping up with a little fertilizer. Do not overdo fertilizing, particularly with a material high in nitrogen. This will cause the plants to overgrow resulting in tall plants that may topple over and may reduce flowering. A fertilizer with about twice as much nitrogen and phosphorus and little or no potash will usually be satisfactory. Sometimes a foliage fertilizing with one of the soluble chemical fertilizers sprayed on the foliage will be all that is necessary.

During the past few weeks, there have been scattered reports of hail damage to plants. This damage has been, in some cases, quite severe on bedding and vegetable garden plants. Don't become panicky and prune back these damaged plants too severely. They have remarkable ability to recover from such damage and it is quite possible that they will mature and bear flowers and fruits if left alone.

The wet weather that we have had lately has provided excellent growing conditions for weeds. Such inclement weather also keeps the gardener from performing the ordinary tasks of cultivating and weeding. Even though the conditions are difficult, the gardener should make every effort to see that weeds are not allowed to flower and set seed. The

formation of seed this year, will insure a bigger and better crop of weeds that will have to be controlled next year.

ANNOUNCEMENTS

"Welcome to Colorful Colorado" is a small book of "Breezy, descriptive Colorado verse" by Len Shoemaker and is dedicated to "the stranger within our gates."

"For eighty-four years the author has lived and worked in Colorado. Thirty of those years were devoted to government service, twenty-five as a forest ranger on the national forest within our colorful state.

Often, as he went about his duties in those beautiful mountainous areas his pride in his homeland spontaneously cropped out in verse, as shown herein. The verses mentally portray some of the people, places and things that he has known and loved." He should be remembered for his earlier work, *Saga of a Forest Ranger*.

This book of poems will make an excellent souvenier of Colorado - all copies are autographed. Available at Botanic Gardens House. Price: \$1.25.

1965-1966 Lecture Series: Don't forget to buy your season ticket for this interesting and informative series of lectures. Season tickets are only \$5.00 and six fine programs are on the agenda. Tickets available at Botanic Gardens House.

Recent additions in scientific botany to the Helen Fowler Library, Denver Botanic Gardens:

BOOKS

1. Vascular Plants of the Pacific Northwest, by C. Leo Hitchcock and others. 1955- to date.

Part 2: Salicaceae to Saxifragaceae

Part 3: Saxifragaceae to Ericaceae

Part 4: Ericaceae through Campanulaceae

Part 5: Compositae

Part one will be added when it becomes available.

2. Chromosome Atlas of Flowering Plants, by C. D. Darlington and A. P. Wylie - 1955.

3. Flora Europaea, edited by T. G. Tutin and others - 1961. Vol. 1 - Lycopodiaceae to Platanaceae.

4. Poisonous Plants of the United States and Canada, by John M. Kingsbury - 1964

5. Flora of Missouri, by Julian A. Steyermark - 1962.

6. Families of Flowering Plants of Southern Africa, by Herbert P. Riley - 1963

7. Seed Identification Manual, by Alexander C. Martin - 1961.

8. Woody Flora of Taiwan, by Li Hui-Lin, - 1963.

9. Forest Entomology, by T. O. Thatcher - 1961.

PERIODICALS

American Journal of Botany.

Economic Botany.

Botanical Gazette

CALENDAR OF EVENTS

Month of August

3)	12:00 noon	Colorado Nurserymen's Association Luncheon	19)	7:30 p.m.	Dahlia Society
5)	10:00 a.m.	Gift Shop Work Shop	20)	1:30 p.m.	Denver Fed. of Federated Women's Clubs Tea
10)	1:00 p.m.	Garden Club of Denver Luncheon		7:30 p.m.	Botany Club
11)	9:15 a.m.	Denver Botanic Gardens Guild Meeting	25)	9:30 a.m.	Garden Club of Denver Work Shop
	2:00 p.m.	Editorial Committee		2:00 p.m.	Denver Metropolitan Women's Club Tea
			27)	10:00 a.m.	Ikebana International
				7:30 p.m.	Men's Garden Club of Denver

We welcome the following new members to Denver Botanic Gardens: Mrs. Robert M. Christiansen, Mr. & Mrs. Robert M. Dixon, Mr. Edgar T. Knapp, Mrs. Baxter Lanius, Mrs. John

N. Mayne, Phillip T. Miyazawa, Mrs. John Mowat, Mr. Kenneth Neal, Mr. Bob Rosenheim, Susan Scott.

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DENVER BOTANIC GARDENS, INC.

909 YORK

TELEPHONE: 297-2428 or 297-2632

SEPTEMBER 1965

GARDENING MEMORANDA

September is planting time for Oriental poppies and peonies. Do not cover the crown-buds of peonies too deeply. From 2 to 3 inches of soil over the bud is enough. Too deep planting is the most frequent cause of failure to bloom in peonies.

September is a good time for seeding lawns. There will be fewer weeds to contend with than in spring. Because the days are shorter and the temperatures likely to be cooler, fall seeded lawns require fewer and less frequent waterings than May or June seedings. Take time to thoroughly prepare the soil and settle the ground before attempting to seed.

Cooler temperatures of September slow down the rate of multiplication of such pests as aphids and red spider mites but they keep on working much longer than one might expect. Watch roses, evergreen trees and shrubs, various perennials and even waterlilies for these pests at this season.

At low fall temperatures our common insecticides such as malathion, nicotine sulphate, DDT and pyrethrum are not so effective as at high summer temperatures. Apply such materials during the hot part of the day or increase the strength of the spray solution.

Picking the faded buds off annuals will encourage them to continue blooming and will reduce the number of volunteer plants in the beds and borders next year.

It is now too late to fertilize trees, shrubs and woody vines, including roses. Applications of fertilizer at this season, particularly those high in nitrogen, will force late growth and make the plants more susceptible to cold injury. At this time of year woody plants need to slow down their growth and harden up for winter.

ANNOUNCEMENTS

There are tickets still available for the 1965-66 Lecture series. Season Tickets are \$5.00. Single lecture tickets are \$1.00 for adults and 50¢ for children 14 years of age and under. The first lecture is scheduled for September 15: Dr. Richard G. Beidleman will talk on "Plains to Peaktops", a Colorado panorama, at Boettcher Hall, University of Denver campus at 8:00 p.m.

New books in the Helen K. Fowler Library: Mr. Von Schleider has given the library a copy of Viola Brainerd Baird's Wild Violets of North America in memory of his cousin, the late Mrs. Dewey Crossman Bailey, Jr.

Welcome to New Members: Mrs. Gerald B. Cullen, Mr. & Mrs. Jack Long, Mrs. A. C. Zimmerman, Mr. & Mrs. Ernest Bibee, Marian MacDonald, Rose Ackerman, Miller Landscape of Colorado Springs, Mr. & Mrs. Lennig Sweet.

The 1964 library inventory revealed that many books are missing from the shelves. It will be appreciated if members who check out books will examine their own book collections to see if some of our missing books may have been overlooked. There will be no penalty for any books returned. Follows a partial list which will be continued in ensuing issues of the Newsletter:

- 041-Melander, Axel: Source Book of Biological Terms.
- 041-Robinson: New Pronouncing Dictionary of Plant Names. 1939.
- 053-Rockwell: 10,000 Garden Questions Answered. 1959.
- 142-Munz: Short History of The Rancho Santa Ana Botanic Gardens.
- 180-Dustan: Landscaping Your Own Home. 1951.
- 180-Johnston: Foundation Planting.
- 180-Sunset: Ideas For Landscaping Your Home.
- 220-Kinsey: New Introduction to Biology. 1938.

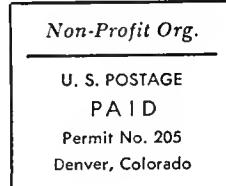
- 220-Parker: Flowers, Prints, Seeds. 1941
 250-Weaver, John E.: Root Development. 1926
 251.4-Stevens, Frank L.: Plant Disease Fungi. 1925.
 271-Clark: Did You Know? 1944
 272-Black: Yukon Wild Flowers.
 272-Gabriel Sons & Co.: Album of Our Wild Flowers.
 274-Reid: Important Plants on National Forest Ranges, Eastern Oregon and Eastern Washington.
 275-Stemen: Oklahoma Flora.
 277-Blinn: Rust Resisting Cantaloupe.
 277-Roberts, Harold: Some Common Colorado Wild Flowers.
 277(cc)-LaGrande: Flora de Colorado de Montana. 1900.
 280-Palmer: Trees of South Africa. 1961.
 280-Platt, R.: A Pocket Guide to Trees.
- 280-Rogers: Tree Guide.
 280- Trees of Brazil
 280-Smith: Michigan Trees Worth Knowing.
 300-Kelly: Plants for The Plains. (Reprint from Green Thumb. Mch. 1947).
 310-Hills': Evergreens. 1932, 1949. and Plate Book of Hills' Evergreens.
 325- Dwarfed Potted Trees as The Japanese Grow Them.
 331-Hansen: Shrubs and Climbing Vines. 1931.
 333-Lester: Roses of Yesterday.
 333-Norris: Growing Roses.
 333-Waterman: Rose Diseases.
 334-Killand: Hedge Plants.
 340B (cc)- The Botanical Magazine.
 340B-Bry: Florilegium Renovatum. 1641
 341-Mulford: Herbaceous Perennials.
 341.1-Wild: Peonies, Day Lilies, Etc. 1952.
 341.6-Ewan: Synopsis of The North American species of Delphinium. 1945.

CALENDAR OF EVENTS
Month of September

2)	10:00 a.m.	Gift Shop Workshop Committee	16)	7:30 p.m.	Dahlia Society
	7:45 p.m.	Orchid Society	17)	7:30 p.m.	Botany Club
8)	9:15 a.m.	Denver Botanic Gardens Guild	19)	1:00 p.m.	American Business Women's Club Tea
	2:00 p.m.	Editorial Committee			
	4:00 p.m.	Associates Board Meeting	20)	4:00 p.m.	Denver Botanic Gardens Board
9)	8:30 a.m.	Flower Show School	21)	1:00 p.m.	Rocky Mountain African Violet Council
10)	8:30 a.m.	Flower Show School	22)	7:30 p.m.	Annual meeting of Associates Members
11)	8:30 a.m.	Flower Show School			
14)	10:00 a.m.	Herbarium Study Group	24)	10:00 a.m.	Ikebana International
16)	10:00 a.m.	Around the Seasons Club		7:30 p.m.	Men's Garden Club of Denver
			26)	2:00 p.m.	Colorado Cactophiles

DENVER BOTANIC GARDENS, INC.

909 York Street, Denver, Colorado 80206



Green Thumb Newsletter

LAWRENCE A. LONG, President

OCTOBER, 1965

DR. A. C. HILDRETH, Director

DENVER BOTANIC GARDENS INC. • 909 York • Telephone: 297-2428 or 297-2632

GARDENING MEMORANDA

Fall is the best time of the year to **plant new lawns** or to **repair old ones**. The most important step in planting a lawn is the preparation of the soil. Organic matter such as peat, compost, leafmold or aged manure should be uniformly incorporated into the underlying soil at the rate of 4 cubic yards to each 1,000 square feet of lawn area. Remember, a lawn is a relatively permanent planting and the manner in which you prepare the soil will determine, to a great degree, the quality of your lawn. (See the August-September 1964 issue of *The Green Thumb* for more complete directions for lawn preparation.) When seeding bad spots in old lawns, the same basic techniques should be used as when planting new ones. In some cases where the damaged area in an old lawn is small, it may be possible to strip sod from an out-of-the-way spot in the garden, or purchase it from a sod grower and use this to repair the damage. However, whether seeding or sodding, the soil should receive the same attention as described above.

You should be giving some consideration to **cleaning up your garden** in preparation for winter. Remove seed pods and dead stems from perennials and remove annuals after they are killed by the frost. Weeds should not be allowed to go to seed for if they do, this will insure a bumper crop which you will have to cope with next year.

Now, before frost strikes, **take cuttings** or "slips" from garden geraniums, coleus, begonias, iresines, fuchsias, etc., for next year's bedding plants. Root them in sand, perlite, sifted peat, sphagnum or vermiculite. When well rooted, pot in soil.

If you dig up and pot any **bedding plants for winter house plants**, prune them severely to the desired shape. Otherwise they will be ungainly, disappointing specimens.

After frost kills the tops of dahlias, canna and gladioli, cut back to the ground, **dig the so-called "bulbs"** and cure them for a while in an airy, frost-free shelter, then store over winter where they will not freeze.

Gladioli corms should be cleaned, put in paper bags into which a little DDT powder is shaken and stored in a dry place at temperatures from 40 to 50 degrees.

Tuberous roots of **canna** and **dahlias** should be stored where it is cool but above freezing. The clumps should be packed in large open containers and completely embedded in air-dry sand, peat or vermiculite to prevent excessive drying. Clumps should be divided in spring before planting.

ANNOUNCEMENTS

Our Botanist-Horticulturist, Mr. Joseph Oppe, will be traveling to New York City on September 29th to attend the Nineteenth American Horticultural Congress and the Annual Meeting of the American Association of Botanical Gardens and Arboreta. He will also be visiting the Phipps Conservatory and Hunt Botanical Library in Pittsburgh, Pa. on his trip.

New officers for Associates of the Denver Botanic Gardens were elected at the first general meeting of the newly-formed organization on September 23rd. They include: Mrs. Chard P. Smith, Manager; Mrs. Graham Morrison, Asst. Manager; Mr. Herbert Franson, Treasurer; Mr. Earl Sinnamon, Secretary.

The **following chairmen** were also elected: Mrs. Lucian Long, Gift Shop; Mrs. Carl W. Tempel, DBG House; Miss Lucy Crissey, Library; Dr. Helen Zeiner, Herbarium; Mrs. William H. Crisp, Editorial Work; Mrs. William Stanley, Membership; Mrs. Robert Kosacky, Flower Arrangements; Mrs. Theodore Washburne and Mrs. Graham Morrison, Plant Sale; Dr. Wayne Christian, Education; and Mrs. Earle Honnen, Garden Show Exhibit.

Don't forget that Saturday, October 17th will be **Clean-up Day** for the Children's Garden plots.

LECTURES

Dr. Helen Zeiner will conduct a course at Botanic Gardens House entitled "**Care and Propagation of House Plants**." There will be five Tuesday night sessions from 7:30 p.m. to 9:00 p.m. beginning on October 13th. Fee for members is \$4.00 and for non-members \$5.00.

Mr. Earl Sinnamon will conduct a course entitled, "**Care of Trees and Shrubs**" at Botanic Gardens House. This will be a series of five Wednesday lectures on October 14th, 21st, 28th and November 4th. There will be one Saturday field session. Details can be obtained later by telephoning Botanic Gardens House. Fee for members is \$8.00 and non-members \$10.00. Registration fees for both lecture series must be paid in advance.

Mr. William H. Anderson, Jr. will give an illustrated lecture on "**Colorado Wildflowers**" at Botanic Gardens House on October 29th at 7:30 p.m. Admission: 50c.

On November 27th, Mr. and Mrs. Middleman will give an illustrated lecture on **South African Plants** at Phipps Auditorium at 8:00 p.m. Admission: \$1.00 adults; children under twelve, free. Tickets are now available at Botanic Gardens House.

CALENDAR OF EVENTS

THE MONTH OF OCTOBER

- | | |
|--------------------------------------------------------------------------------------|---------------------------------------------------------|
| 1) 9:00 a.m. Colorado Federation of Garden Clubs Symposium (last day) | 14) Reviewers Club |
| 7:45 p.m. Orchid Society | 2:00 p.m. Editorial Committee |
| 5) 9:00 a.m. Denver Botanic Gardens Guild, 720 Marion St., Subject: "Shade Gardens." | 15) 10:00 a.m. to 2:00 p.m. Around the Seasons |
| 10:00 a.m. Around the Seasons | 7:30 p.m. Dahlia Society |
| 7:30 p.m. Swingle Study Group | 16) 7:30 p.m. Botany Club |
| 6) noon to 4:00 p.m. Mountain View Garden Club | 17) 9:00 a.m. to noon Clean-up Day at Children's Garden |
| 8) 7:30 p.m. Rose Society | 21) 9:30 a.m. to 2:30 p.m. Fun With Flowers |
| 12) 9:30 a.m. Judge's Council | 23) 10:00 a.m. Ikebana International |
| 13) 10:00 a.m. Herbarium Study Group | 7:30 p.m. Men's Garden Club of Denver |
| | 25) 2:00 p.m. Colorado Cactophiles |

OCTOBER NEWSLETTER

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HELEN M. VINCENT, Editor

DENVER BOTANIC GARDENS, INC.

909 YORK

TELEPHONE: 297-2428 or 297-2632

NOVEMBER 1965

GARDENING MEMORANDA

Late November is the favorite time to prepare rose plantings for winter. In our region, hybrid teas, grandifloras, floribundas and miniatures all need winter protection. Best protection is provided by building a mound of soil around each bush to a height of 8 to 10 inches (lower for miniatures). The hardy shrub roses that give one burst of bloom in spring or early summer such as the common Austrian Copper, Persian Yellow, Harrison's Yellow and **Rosa rubrifolia** are hardy and need no protection over winter.

Don't dig the soil needed for the protective mounds near the rose bushes as this may expose some of the roots. Borrow the soil from the annual flower bed or from some other part of the garden and pay it back when the mounds are dug down next spring. If there is no place in your garden where you can obtain the soil necessary for mounding the roses, buy some potting soil from a nursery. There usually is some place in a garden where good potting soil can be used to advantage after the mounds are dug down in the spring.

Don't prune back severely the tops of rose bushes now. Wait until spring for that operation. The green stems and leaves still have work to do before severely cold weather stops their activity. At this time, cut back only the very tall stems and wayward branches that might be broken by strong wind or heavy snow. Just before mounding the soil around the bush draw the canes loosely together and tie them with stout cord or stripes of cloth. This will tend further to prevent breakage over the winter and will make it easier to mound the soil around the base.

The latter part of November is the proper time to protect trees from winter sunscald. All smooth-barked trees are subject to this trouble. The injury shows as dead bark mainly on the southwest side of the tree trunk and may extend from the ground up to the branches. Mountain ash, redbud, all kinds of maples and lindens are particularly liable to such damage.

This injury can be prevented by shading the trunk on the southwest side. The neatest way to provide such shade is to wrap the tree trunk with a special paper wrapping, available in most garden supply stores. The wrapping can be taken off in late spring if desired but many tree planters prefer to leave it on the year around. Such protection is needed until the bark becomes roughened with age and thick enough to provide considerable insulation from the sun's heat rays.

Leaf-raking is one of the principal garden chores in the fall. Removing the leaves prevents them from piling up on lawns or on low planting where they may pack down and damage the plants beneath. Cleaning up the leaves also gives the grounds a tidy appearance.

Before burning the leaves or sending them to the dump, see how many you can work into the soil in your shrub border, perennial bed or around trees. Use a spade for small areas and a power rototiller for large areas. Leaves thoroughly mixed with the soil will decompose

(Continued on back page)

ANNOUNCEMENTS

Associates Activities: The Conservatory Committee is currently being organized and the first meeting was held at 1:00 p.m., October 27, at 909 York Street. Mr. Ernest Bibee conducted a tour of the greenhouses and conservatory and a plan for training guides was established. This training promises to be most exciting and offers a wonderful opportunity for learning about the exotic plants. Anyone interested in joining the committee should call the chairman, Dr. Robert Perry: 733-6280.

In anticipation of the holiday season and the opening of the conservatory, the Arts and Crafts group has assembled a large supply of preserved plant materials and welcomes anyone interested in handcraft to the regular workshop on November 4, 10:00 a.m., 909 York St.

Lecture Series: Dr. Estella B. Leopold, Botanist with the U. S. Geological Survey will present an illustrated lecture, "Fossil Pollen and Forest History" at Phipps Auditorium on Tuesday, November 30, at 8:00 p.m.

To plant enthusiasts, pollen is essential in the life cycle of seed plants but to hay fever sufferers, it brings annual discomfort. However, to the scientist the study of fossil pollen and spores in recent years has revealed exciting additional facts concerning the exodus of prehistoric man from Mesa Verde, the correlation of coal seams in Indiana and the itinerary of ancient maples in California. These and other recent disclosures will be discussed in this exciting lecture.

Air-borne pollen and spores eventually settle to become a part of the continuing accumulation of sediments at the earth's surface. These pollen grains, usually less than one-hundredth of a millimeter in size, have the distinction of being the smallest plant part that can be identified to genus. Pollen from different families and most genera are of different shapes and sizes and are variously ornamented so that they can be told apart. As fossils, pollen and spores represent a virtual library of scientific information relating to past vegetation, climate and even plant evolution.

Dr. Leopold's talk is the fourth in the current lecture series. Single admission tickets are available for \$1.00 at the door.

Important Notice: When mailing individual copies of *The Green Thumb* magazine, 6¢ postage is required. The permit number printed on the back cover is used only when bulk mailings are made.

Denver Botanic Gardens extends a cordial welcome to **new members:** Mrs. Medford G. Klein, Joe Hudiburg, Mrs. Jose Barchilon, Miss Hazel M. Moore, Myrtle McDowell, Mrs. C. J. Downing and Lillian Ryan.

Congratulations to Herbert C. Gundell, Colorado State University extension agent in Denver County for being awarded the Epsilon Sigma Phi professional excellence award. Mr. Gundell, also a Denver columnist and radio and television personality, received the award from the Extension Service for "constant professional improvement which has led to his recognition as a horticultural leader in the Rocky Mountain area".

quickly. They loosen tight clay and tighten loose sand and also increase its water-holding capacity.

You can make good leafmold or compost from leaves. Don't be discouraged by the complicated directions for making compost found in garden books and magazines. Some gardeners and, especially, garden writers want to make elaborate rituals out of simple garden operations. Nature made good material for improving soil from

leaves long before man got around to making compost. If you have time to make compost according to the recommended formula, all well and good. If not, you can make a good product for conditioning your soil by simply piling up some leaves in some corner of the garden, weighting them down somehow so that they do not blow away and keeping them well watered. By spring they will be fairly acceptable but they will be better after a year or two.

CALENDAR OF EVENTS

MONTH OF NOVEMBER

- | | | | |
|---------------|------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------------|
| 1) 7:30 p.m. | Swingle Study Group | 11) | House Closed—Veteran's Day |
| 2) 4:15 p.m. | Education Committee | 13) | 10:00 a.m. Men's Garden Club of Colo. |
| 7:15 p.m. | Open Space Council | 15) | 4:00 p.m. Denver Botanic Gardens Board |
| 7:30 p.m. | American Society Landscape Architects | 16) | 1:00 p.m. Rocky Mountain African
Violet Council |
| 4) 10:00 a.m. | Gift Shop Workshop | 18) | 10:00 a.m. Around the Seasons Club
7:30 p.m. Dahlia Society |
| | 7:45 p.m. Orchid Society | 19) | 7:30 p.m. Botany Club |
| 8) | 2:00 p.m. Library Committee | 26) | 10:00 a.m. Ikebana International
7:30 p.m. Men's Garden Club of Denver |
| 9) | 10:00 a.m. Herbarium Committee | 28) | 2:00 p.m. Colorado Cactophiles |
| 10) | 9:15 a.m. Denver Botanic Gardens Guild
12:00 noon Colorado Garden Show Board
2:00 p.m. Green Thumb Editorial Committee | | |

NOVEMBER NEWSLETTER

DENVER BOTANIC GARDENS, INC.

909 York Street, Denver, Colorado 80206

Non-Profit Org.

U. S. POSTAGE
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Permit No. 205
Denver, Colorado

Green Thumb Newsletter

LAWRENCE A. LONG, President

DR. A. C. HILDRETH, Director

HELEN M. VINCENT, Editor

DENVER BOTANIC GARDENS, INC.

• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

DECEMBER 1965

GARDENING MEMORANDA

By this time of year, all gardens should have been prepared for winter. This means that the storage organs of such tender perennials as canna, dahlia, gladiolus and tuberous begonia should have been dug and stored; bedding roses and other not-quite-hardy shrubs should have soil mounded around their bases; trunks of smooth-barked young trees, especially maples, mountain ashes, redbuds and lindens, should have their trunks wrapped or otherwise protected on the southwest side from the winter sun in order to prevent winter sunscald. If you haven't already attended to these chores, do them at once.

Another important job in preparation for winter is irrigation. This is a "must" after the dry fall we have just experienced. All trees and shrubs (including roses) should go into winter with "wet feet". They should have a heavy watering in late November or early December that will soak deeply into the soil and cover the whole area under which the roots have spread. Roots of a tree normally extend farther out from the trunk than do the limbs.

If you have one of those patented deep-irrigators for watering trees and shrubs, all well and good. For those who don't, remember that such appliances will accomplish nothing more than can be done with patience and an ordinary garden hose. Deep-watering devices merely do the job quicker. With ordinary equipment it is necessary to apply the water slowly and over a long period of time in order to obtain the deep penetration desired and to prevent excessive run-off.

Evergreen trees and shrubs especially need watering now and also later in winter, as they carry their full foliage the year around. They lose water rapidly during sunny, windy weather of winter and early spring. Unless the soil is well supplied with water evergreens may die or suffer serious damage.

Birch trees also have a high water requirement during winter. Much of the killing back seen in the tops of birch trees result from lack of water in winter rather

than from damage by insects or diseases.

Trees, shrubs and perennials growing out-of-doors in planters or other containers are very likely to need winter watering because of the limited volume of soil in which they are usually grown.

Most perennials and particularly those that have just been fall-planted and those with shallow root systems such as chrysanthemums, need watering in December and occasionally during the winter and early spring.

Lawns, especially those seeded this fall and lawn areas in places much exposed to winter wind and sun will benefit from irrigation now and at intervals during the winter and early spring months.

Upright juniper trees frequently have their branches broken or splayed out of shape by heavy snow. This can be prevented easily and inconspicuously by binding the top in the fall or early winter before heavy snows are expected. Use a stout cord and tie one end to the trunk or a strong branch at the base of the tree. Then wind the cord in a loose spiral around the outside of the tree, pulling the branches rather firmly together until the top is reached. Tie the end of the cord tightly so that the spiral will not unwind. A green colored cord such as is used by florists will be less conspicuous than the usual white or brown.

December is one of the months in which strong sprays can be applied to trees and shrubs for control of hard-to-kill insects such as oystershell scale, San Jose scale, cottony maple scale and pine needle scale on pines. Dormant strength oil sprays are usually applied to deciduous trees and shrubs. It is not safe, however, to use oil sprays on evergreen in this climate, and they are not recommended. Lime sulphur, dormant strength, can be used safely on both evergreen and deciduous species, with two exceptions.

These exceptions are piñon pine and the wayfaring tree, Viburnum lantana. Both seem to be very sensitive to sulphur.

ANNOUNCEMENTS

CHRISTMAS TREASURES FOR SALE AT DENVER BOTANIC GARDENS GIFT SHOP: Cherished books, artistic dried arrangements, practical Wilkinson hand pruners, and a variety of hand crafted wreaths, candle boards and favors fashioned of cones and pods are offered at this holiday season. (Some handicrafts are in limited supply.)

A wide selection of books includes special children's editions on wild-flowers and insects. Among the specialized books pertaining to conservatory plants is The Colorful Houseplants, Bromeliads, by Jack Kramer. Several books by Emma Cyphers are offered including her popular Fruits and Vegetable Arrangements. A rare volume, Manual of Plants of Colorado by H. D. Harrington is available.

A bonus gift suggestion for rose hobbyists is Rose Culture in the Denver Area, a special issue of The Green Thumb magazine. Bookmarks of pressed flowers

and hand decorated match boxes are appropriate stocking-stuffers.

Denver Botanic Gardens extends a cordial welcome to NEW MEMBERS: Mrs. Bernhard M. Amdahl, Mrs. George J. M. Kell Mr. & Mrs. Herbert H. Hatfield, Mrs. Migno D. Lake, Dr. William R. Brown, Mountain States Tel. & Tel. Co., Public Service Co. of Colorado, Mr. & Mrs. J. Clinton Bowman, Mr. Austin Marquis, Natkin & Company, Mr. Gerald L. Schlessman, May D & F Stores, Mr Virginia W. Hill, Mrs. Frederick Deeks, Mr & Mrs. Leigh H. Norgren, Homer Reed, Ltd., Ideal Cement Co., Mr. Coloman Jonas, Pre-stressed Concrete Co., Dr. & Mrs. William S. Davis, Mr. David S. Day, Mr. & Mrs. Robert B. Jacks, Mrs. A. E. DeRicques, Mr Dorothy Green, Mr. & Mrs. George D. Arnold Adolph Coors Co., Denver Clearing House Association, Denver Dry Goods Co., Faris-Moritz Equipment Co., Garden Club of Denver Gordon Construction Co., Mrs. Robert W. Halpenny, Mr. Frank Johns, Karman, Inc., Mr. Harold Kuntze, Merrill Lynch, Pierce, Fenner & Smith, Inc., Moore Mortuary, Mr. Harry Schmidt, S. W. Shattuck Chemical Co. Mr. R. S. Shannon, Mr. W. J. Slifer, Stapleton Drug Co., Tipton & Kalmbach, Inc Columbia Savings & Loan, Drs. Humphrey, Siersma & Jackson, McCoy Company.

CALENDAR OF EVENTS Month of December

- | | | | | | |
|----|------------|---------------------------------|-----|-----------------|-------------------------|
| 1) | 9:00 a.m. | Denver Botanic Gardens Guild | 14) | 10:00 a.m. | Herbarium Study Group |
| | 12:00 noon | Colorado Garden Show Board | 15) | 9:30 a.m. | Fun with Flowers |
| | 1:00 p.m. | Conservatory Committee | 16) | 10:00 a.m. | Around the Seasons Club |
| 2) | 10:00 a.m. | Gift Shop Workshop | | 7:30 p.m. | Dahlia Society |
| | 7:45 p.m. | Orchid Society | 17) | 9:00 a.m. | Garden Club of Denver |
| 6) | 9:30 a.m. | Gift Shop Committee | | 7:30 p.m. | Botany Club |
| | 7:30 p.m. | Swingle Study Group | 25) | MERRY CHRISTMAS | |
| 8) | 12:00 noon | East Side Garden Club | 26) | 2:00 p.m. | Colorado Cactophiles |
| | 2:00 p.m. | Green Thumb Editorial Committee | | | |

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• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

JANUARY 1966

GARDENING MEMORANDA

In our climate, January is the month of least activity in the garden. Yet there is worthwhile work that can be done to get the overwintering plants successfully through their dormant period and also to prepare for the next gardening season.

Tools: If you have a reasonably comfortable place in which to work, put your garden tools in good condition now. Clean off any soil carelessly left on soil-working implements. With steel wool, polish off any rust that has accumulated on metal parts. Tighten handles. Rub down rough spots on wooden handles with fine sandpaper. Straighten rake teeth and fork tines. Sharpen cutting edges of spades, shovels, hoes and trowels. Wipe all metal parts with an oily rag to prevent rust. Take hedge shears and pruning shears apart and clean thoroughly. Sharpen blades carefully. Put a few drops of light oil around the screw.

Machinery: Now is the time to overhaul all garden machinery such as mowers, edgers, rototillers, power clippers and sprayers. Your service man will do a better job on them now than during the rush period of spring. If you do the work yourself you now have plenty of time to do a thorough job of it and to place orders for broken or badly worn parts. Take time to look over your little-used equipment such as the wheelbarrow and the fertilizer spreader. Grease and oil them as necessary. A coat of paint will brighten them up and prevent rust.

Sprayers and dusters are too often neglected with the result that they do poor work or fail to work when most needed. Clean tanks, nozzles, and pumps thoroughly. Replace worn hoses and gaskets and test with water to make certain that all are in good working order. Dealers in standard makes of sprayers usually have, or can obtain for you, repair parts so that it is not necessary to throw a whole sprayer away because some small part is not functioning.

Irrigation Equipment: Now is the time to put your portable irrigation equipment in working condition for next gardening season. Clean and adjust nozzles, replace worn gaskets and washers and mend hoses. Most Colorado gardeners now know that not all irrigation

equipment should be put in dead storage when the bluebirds fly south. A certain amount should be left where it can be put into use quickly for watering on warm winter days.

Winter Irrigation: In our semi-arid climate, drought is a garden problem in January as well as in July. Evergreens are more likely to suffer from winter drought than deciduous species. Plantings on south slopes dry out quicker than on other exposures. In areas close to the south side of a building, wall, tight fence or even a low-branched evergreen tree, low plantings and lawns dry out very rapidly. Rays of the low-angled winter sun are reflected downward from such objects, warming the soil and the plants in such locations considerably above the general atmospheric temperature and causing the plants to lose much moisture. If this moisture is not replaced by irrigation the plants may be killed or seriously injured.

ANNOUNCEMENTS

CRAFT WORKSHOP THURSDAY: Instructions in making nut animals will be given at the regular Arts and Crafts workshop at Botanic Gardens House Thursday, Jan. 6 at 10:00 a.m. These little animals and figures made from nuts and seed pods are popular favors and imaginative gifts for convalescing children. Persons interested in learning to make these and other items for sale in the gift shop are invited to attend.

SAVE SMALL BOXES: A post-holiday reminder, Christmas card boxes and other small boxes with plastic lids are always needed at the gift shop for packaging handicraft items. Please leave such boxes with the hostess or Mrs. Vincent at Botanic Gardens House.

CONSERVATORY PREVIEW: Invitations will be going out to members of Denver Botanic Gardens for a preview of the new building on Friday, January 14 from 3:00 p.m. until 5:30 p.m. Your invitation will be your admission ticket so be sure to bring it with you.

CONSERVATORY DEDICATION - The official dedication of the new Conservatory will be held on Saturday, January 15 at 10:00 a.m. The public is cordially invited to attend. The building will remain open to visitors until 6:00 p.m.

ILLUSTRATED LECTURE - COLORADO WILD FLOWERS on Friday, January 28, 8:00 p.m. at Botanic Gardens. This is one of the bonus lectures for which season ticket holders are entitled to make reservations without charge. Please make your reservation by January 21 by calling 297-2428 or coming to Botanic Gardens House, 909 York Street. Any unreserved seats after that date will be made available to the general public. Adults: \$1.00. Children: .50¢. Dr. and Mrs. William Anderson will present this lecture. Dr. Anderson is Principal of South High School.

List of new members will be published in next month's issue.

The seating capacity is limited to 60 people and the reservations will be made on a first come, first served basis.

CONGRATULATIONS to Dr. A. C. Hildreth, Director of Denver Botanic Gardens for receiving from the National Chrysanthemum Society an Outstanding Service Award for his work in originating chrysanthemums of exceptional hardiness. This work was conducted over a period of more than two decades while he was employed by the U. S. Department of Agriculture as Superintendant of the Cheyenne Horticultural Field Station at Cheyenne, Wyoming.

COLORADO NURSERYMENS' and ARBORISTS' SHORT COURSE and CONVENTION at Colorado State University - Student Center, January 24-25, 1966. For further information, contact Charles M. Drage, Colorado Extension Service, Colorado State University; Ft. Collins, Colorado.

CALENDAR OF EVENTS
Month of January

- | | |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 3) 1:00 p.m. Rocky Mountain African Violet Council | 14) 3:00 p.m. Conservatory Preview - Denver Botanic Gardens Members only |
| 5) 12:00 noon Colorado Garden Show Annual Meeting | 15) 10:00 a.m. Official Dedication of Conservatory - public is invited. |
| 6) 10:00 a.m. Gift Shop Work Shop | 20) 10:00 a.m. Around the Seasons Club |
| 7) 11:00 a.m. Civic Garden Club Board Meeting followed by luncheon | 7:30 p.m. Dahlia Society |
| 10) 7:30 p.m. American Society of Landscape Architects | 21) 7:30 p.m. Botany Club |
| 11) 10:00 a.m. Herbarium Study Group | 23) 2:00 p.m. Colorado Cactophiles |
| 12) 9:30 a.m. Denver Botanic Gardens Guild | 28) 10:00 a.m. Ikebana International |
| 1:00 p.m. Conservatory Guides Meeting at Conservatory | 30) 12:00 noon Presidents Council Tea for Benefit of Denver Botanic Gardens |
| 2:00 p.m. Editorial Committee | |

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HELEN M. VINCENT, Editor

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• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

FEBRUARY 1966

GARDENING MEMORANDA

Order Seeds and Nursery Stock Now: February is the month when gardeners are deluged with new seed and nursery catalogs and tempted with advertisements which make great promises for the coming garden season. Place your orders early before dealers are sold out of items that you want. You can order nursery stock now and request delivery at whatever time you wish to plant.

Inspect Stored "Bulbs": To determine if they are wintering satisfactorily, examine Gladiolus corms and tuberous roots of Cannas, Dahlias and tuberous Begonias which are stored for winter. Decayed or moldy areas indicate that they are stored under conditions of too much moisture. Discard any that are badly decayed. Spread the others out in a frost-free place to dry. After all visible moisture has been dried off the surface, repack and keep under drier conditions than formerly.

Dahlia and Canna roots are especially liable to dry out and become shriveled in storage. If not too severely shriveled they may be plunged into water until they become plump again, after which they should be spread out and dried until the surface is free of visible moisture and then repacked. Placing a layer of wet burlap over the packing material or covering it with a sheet of plastic will retard the shriveling.

If you have not already done so, treat Gladiolus corms now to destroy thrips by dusting DDT powder into the bags in which the corms are stored.

Remove Dead Trees: February is a good time to remove dead or dying trees. At this season the gardener is usually not so rushed with other duties and can take time to do the job properly. There are now no annual flowers that might be injured by the operations of felling the tree, cleaning up the top and removing the stump. Also, because perennial flowers and lawn grasses are in a dormant condition, there is less danger of damaging them in removing a nearby tree now than when

Dead or half-dead trees may harbor insects that will later spread to good, live trees. The wood and bark of such infested specimens should be disposed of by burning before the insects are reactivated by warm spring temperatures.

If the tree to be removed is of considerable size, it is advisable to employ the services of an experienced arborist. This may save a damage claim against you by a public utility company or neighbor, a hospital bill, or even your life.

ANNOUNCEMENTS

THE FIFTH WORLD ORCHID CONFERENCE, sponsored by the American Orchid Society, The Royal Horticultural Society and The Orchid Society of Southern California will be held in Long Beach, California, April 1 22, 1966. Address inquiries for attending to MR. A.F. WURTENBERGER, P. O. Box 343, Downey, California. There will be a series of tours to commercial and amateur orchid collections on the days preceding and following the Conference. For information write to MR. HUGO FREED, Tours Chairman, 5731 S. Bonsall Avenue, Malibu, California

DR. RALPH BAKER, Colorado State University, Department of Plant Pathology, will lecture at Treat Hall, Colorado Women's College on FRIDAY, FEBRUARY 26, 1966. His subject will be: Exploring Extraterrestrial Plant Pathology and Some Projected Biosatellite Explorations. This is the second to the last lecture in the 1965-1966 series. Admission is \$1.00 for adults who do not have season tickets and .50¢ for students.

THE TELEPHONE NUMBER for the Denver Botanic Gardens Conservatory is 297-2348. Anyone wishing to schedule a guided tour for a group can make arrangements by calling this number. More tour guides are needed and anyone wishing to volunteer for this service will be welcome. Information regarding the conservatory may also be obtained by dialing this number.

olic Saturday through Thursday from 9:00 . to 5:00 p.m. and on Friday from 9:00 . until 9:00 p.m. The Gift Shop is open am 10:00 a.m. until 4:00 p.m.

WELCOME BACK TO DR. JAMES FEUCHT who was formerly associated with Denver Botanic Gardens. After spending several years as Assistant Professor of Ornamental Horticulture at Rutgers University, Dr. Feucht is associated with Colorado State University Denver Metropolitan Area Extension Horticulturist. He will do research work on local horticulture problems and establish up-to-date educational programs in ornamental horticulture, working closely with the County agents and the horticultural organizations in the five-county area. His office is located in Botanic Gardens House.

Denver Botanic Gardens extends a cordial welcome to NEW MEMBERS: Mrs. Jane A. Middlebrook, Mr. & Mrs. Harlow C. Platts, Mr. Ned

Marshall, Mr. & Mrs. David A. Spencer, Mrs. Thomas D. Waugh, Mrs. Donald M. Culver, Mr. & Mrs. Walter Meissner, Mr. Dean C. Wellman, Miss Edith W. Trosper, Mrs. Herman Jaeckel, J. W. Wendt, The Sunbonnet Garden Club of Aurora, Fort Morgan Garden Club, Mrs. R. F. Fowler, Friendly Gardeners, Mr. Harold Silver, Mrs. Rike D. Wooteen, Bow Mar Gardeners, Mrs. Constance Smith, Mr. & Mrs. T. E. Taplin, Mrs. Delos Chappell, The Barnes Corporation, Founders Mutual Deposit Mr. & Mrs. Edward P. Connors, Ikebana International, Mrs. William D. Miller, Mrs. James S. Holme, Mr. & Mrs. David Grimes, Mr. Charles Cascio, Edward E. Nelson, Mrs. Thomas Chapman, Mrs. Frank A. Traylor, Jr., Mr. & Mrs. Jack Kennell, Mr. Richard P. Brown, Vern Hagesstad Motor Co., Merchants Oil Co., Dr. & Mrs. Leon A. Olsen, Mr. J. M. Omura, Mr. John R. Evans, Dr. Howard C. Reynolds, Mr. & Mrs. Lee W. Van Etten, Mrs. E. Tamminga, Boettcher & Company, Mr. Munroe L. Lyeth. (Continued next month).

CALENDAR OF EVENTS Month of February

9:30 a.m.	Editorial Sub-committee
7:30 p.m.	American Association of Landscape Architects
7:30 p.m.	Colorado Chapter of American Planners
10:00 a.m.	Gift Shop Workshop Committee
7:30 p.m.	Denver Orchid Society
12:00 noon	Civic Garden Club
9:30 a.m.	Gift Shop Committee (at Conservatory)
10:00 a.m.	Herbarium Study Group
9:30 a.m.	Denver Botanic Gardens Guild
2:00 p.m.	Green Thumb Editorial Committee

14)	7:30 p.m.	Colorado Open Space Council
17)	10:00 a.m.	Around the Season Club
18)	7:30 p.m.	Botany Club
21)	10:00 a.m.	Plant Sale Committee Meeting
22)		Washington's Birthday - House Closed
25)	10:00 a.m.	Ikebana International
	7:30 p.m.	Men's Garden Club of Denver
27)	2:00 p.m.	Colorado Cactophiles

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Conservatory Superintendent, Ernest A. Bibee - 297-2810 Conservatory & Gift Shop - 297-2348

MARCH 1966

GARDENING MEMORANDA

March is considered a spring month but you might never guess it from Colorado weather. Our March weather is fickle, now blowing hot and now cold. The gardener who can shift his garden chores to match the moods of the weather will be able to work always in comfort and will get all his spring work done on time.

On the bad days order the seeds, bulbs and plants that you have been intending since the first of the year. Examine the stored tuberous roots of dahlias and the rootstocks of cannas to see that they are either rotting from too much moisture or shriveling from excessive drying. Adjust the moisture of the packing material or the humidity of the storage room accordingly. It is a long time before these plants can be set in their summer locations.

If you haven't already done so, put the garden tools and machinery in good working order. This will avoid delays when you are ready to use them.

March is a good time to recondition the soil in shrub and flower beds and borders by working into them some compost, leaf mold, manure, peat or other organic material. Such treatment will loosen up a tight clay soil, break clods and prevent the formation of a crust on the soil surface. The same material will also tighten up sandy soils that are too loose.

March is a planting month for certain kinds of plants. Whenever the soil is free from frost all trees and shrubs, either bare-root or balled-and-burlapped stock, may be planted. Sod for lawns may be laid now. Keep all new plantings well watered to prevent their drying out.

Annual bedding plants on the market are now so good and so plentiful that many gardeners have forgotten that annuals can be seeded out-of-doors where they are to bloom. March is a good time to seed several of the hardy annuals such as bachelor button,

calendula, China aster, cosmos, gloriosa daisy, larkspur, marigold, snow-on-the-mountain, sweet alyssum and sweet pea.

For direct seeding of annuals, prepare the soil thoroughly to obtain a fine, firm seed bed. Sow the seeds evenly and not too thickly and cover lightly. Large seeds should be covered deeper than small seeds. Water as necessary to prevent the soil from drying out, but avoid standing water on the seeded area as this may cause the seeds to rot. Thin the seedlings to the proper spacing before they become large enough to crowd each other.

ANNOUNCEMENTS

Many long-time members of The Colorado Forestry and Horticulture Association (now disbanded) will be saddened by the news of the death of Miss Alice Wood of Colorado Springs. Miss Wood was former assistant editor of The Green Thumb magazine which is now the official publication of Denver Botanic Gardens.

The DENVER ROSE SOCIETY announces that its ANNUAL ROSE SHOW will be held in the lobby of the First National Bank of Denver, 17th and Welton Streets, on Sunday, ~~Feb~~^{June} 26. Hours: 1:00 p.m. to 5:00 p.m. Admission is free. The show will be governed by the standard rules and regulations of the American Rose Society. All competitive exhibits are open to all members of the Denver Rose Society and to American Rose Society members of all Rocky Mountain District rose societies: Colorado Springs, Boulder, Longmont, Lafayette, Colorado and Salt Lake City, Utah.

This is a reminder that the fund drive for Horticulture Hall is still in progress and that more than a third of the required funds have already been received or pledged. All persons who have received contributors

cards are urged to complete and return them at once.

COLORADO NURSERYMEN ELECT - Harry Swift of Golden, out-going president of the Colorado Nurserymen's Association, turned over his duties to the new officers elected at the group's annual meeting at Colorado State University the latter part of Jan. The new officers are: Charles L. Watenpaugh, Country Fair Garden Center, Denver, President; Robert Woodman, Woodman Nursery, Littleton, Vice president; and Robert Horst, Kroh Brothers Nursery, Loveland, Secretary-treasurer.

Denver Botanic Gardens extends a cordial welcome to NEW MEMBERS: Mr. Richard K. Gilbert, Mrs. Charles V. Petersen, Mary D. Pinkston, Mr. Jerome E. Dingerson, Mr. Arnold S. Hojem, Mrs. Carl L. Smith, Mrs. Harland T. Close, Mrs. E. S. McNeil, Mrs. Aileen Sears, Mr. Scott L. Palmer, Mrs. Irene G. Philbin, Mrs. Robert K. Timothy, Mrs. Warren L. Flock, Mr. Peter F. Hovell, Mrs. Helen M. Perry, Mr. John B. Gilmore, Miss June Wurtzebach, Gertrude E. Miller, Virginia M. Weigand, Mr. & Mrs. Willard Sollers, Mrs. Carl Boyer, Jr., Mr. David G. Milne, Mrs. C. W. Reed, Mr. John J. Sullivan, Mrs. D. R. C. Brown, Miss Alice Hale, Mrs. Hortense Kirkwood and Mrs. Thomas T. Wilson.

Mr. Ernest A. Bibee, Superintendent of the conservatory at Denver Botanic Gardens will lecture at Treat Hall, Colorado Women's College on Friday, March 25. His subject will feature a review of the conservatory and some of its possibilities as an educational facility. Season tickets are good for admission. Individual adult tickets are \$1.00. Students: 50¢. Time: 8:00 p.m. This is the second to the last of the lectures presented in the 1965-66 series.

Congratulations to George W. Kelly who received the "Outstanding Nurseryman of 1965" award at Colorado State University Monday, January 24. The presentation opened the two-day Colorado Nurserymen's and Arborists' Short Course and Convention at CSU. Mr. Kelly said: "Of the awards I have received in the past 10 years, this one means the most to me because it is from the people who know and work with me". Harry Swift presented the award and stated that: For almost 40 years many of those in the profession have recognized George as "Mr. Horticulture in Colorado". Mr. Kelly asked that the cash award be given to an outstanding student studying in CSU's Department of Horticulture.

CALENDAR OF EVENTS Month of March

- | | | | | | |
|-----|------------|------------------------------------------|-----|------------|---------------------------------------|
| 2) | 7:30 p.m. | American Society of Landscape Architects | 15) | 1:00 p.m. | Rocky Mountain African Violet Council |
| 3) | 10:00 a.m. | Gift Shop Workshop | 17) | 10:00 a.m. | Around the Seasons Club |
| | 7:30 p.m. | Denver Orchid Society | | 7:30 p.m. | Dahlia Society |
| 8) | 10:00 a.m. | Herbarium Study Group | 18) | 7:30 p.m. | Botany Club |
| 9) | 9:30 a.m. | Denver Botanic Gardens Guild | 25) | 10:00 a.m. | Ikebana International |
| | 2:00 p.m. | Green Thumb Editorial Committee | | 7:30 p.m. | Men's Garden Club of Denver |
| 10) | 10:00 a.m. | Gift Shop Workshop | 27) | 2:00 p.m. | Colorado Cactophiles |
| | 7:30 p.m. | Rose Society | | | |

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Conservatory Superintendant, Ernest A. Bibee - 297-2810 Conservatory & Gift Shop - 297-2348

APRIL 1966

GARDENING MEMORANDA

Dormant spraying of evergreens to control scale and aphids must be done before the buds open. This is usually about the end of April, in the Denver area. The only safe and effective dormant spray to use on evergreens is lime-sulphur.

April is the favorite month for applying pre-emergence treatments for crabgrass. These materials control crabgrass and certain other annual lawn weeds by preventing their seed from germinating. Applications must, therefore, be made before soil and air temperatures are warm enough to germinate the seed. Usually, this will be about the end of April in the Denver area. Pre-emergence treatments are useless after the seeds have germinated. Another kind of chemical must be used to kill the plants.

Summer blooming ornamental trees and shrubs can still be pruned during April. As their flower buds will be formed later, on wood of this year's growth, spring pruning will not remove any flowers or blossom buds.

Do not prune spring-blooming trees and shrubs at this season. Pruning them before bloom will only reduce the number of flowers. Prune them only after their blooming period is passed, in late spring or early summer.

If you haven't already done so, plant your bachelor button, calendula, coreopsis, larkspur, Shirley poppy, sweet alyssum and sweet pea seed now, in the place where the plants are to flower. Such plants will bloom almost as early as those which are started under glass and later transplanted to the garden.

April is a good time to prune evergreen trees and shrubs and to repair any damage caused by wind and snow during winter or early spring. Ordinary gaps in the foliage caused by such corrective pruning will fill in quickly when spring growth starts.

ANNOUNCEMENTS

In preparation for the Annual Plant Sale to be held May 6 and 7 at Botanic Gardens House and for training sales people, forums will be held, with a panel of experts, on the following dates at Botanic Gardens House: Houseplants: April 18, 9:30 a.m.; Perennials: April 19, 9:30 a.m.; Annuals: April 20, 9:30 a.m. Anyone wishing to volunteer their services should plan to attend. Also urgently needed now are clay and plastic pots of all sizes. These may be left at the west end of the greenhouse. Home garden donations should be potted and labeled. They may be delivered after May 2 to Botanic Gardens House at 909 York Street.

"Prelude to Spring" - Colorado State University announces its Annual Horticulture Show at the armory in Fort Collins: April 21 7:30 a.m. to 10:00 p.m., April 22, 1:00 p.m. to 10:00 p.m., April 23, 10:00 a.m. to 10:00 p.m., April 24, 1:00 p.m. to 5:00 p.m. and the Plant Sale on April 24 at 5:00 p.m. Dr. W. D. Holley, Horticulture Department, C.S.U., Fort Collins, is in charge of this show.

Mrs. Raymond Watts, Naturalist Emeritus, will give an illustrated lecture on Friday, April 29, at 8:00 p.m. at Treat Hall, Colorado Woman's College. Mrs. Watts is a well known lecturer and her subject will be timely and interesting. This is the final lecture in the Denver Botanic Gardens 1965-66 series. Single admission tickets are \$1.00 for adults and 50¢ for students.

Arbor Day is celebrated on Friday, April 15, this year. Plant a tree!

Circle the date June 26, 1966 on your calendar. The Annual Rose Show of the Denver Rose Society will be held from 1:00 p.m. to 5:00 p.m. in the lobby of the First National Bank of Denver. Admission free.

Guides to lead tours in the outside (York Street Unit) gardens are imperatively needed due to the increased public interest.

Three training sessions have been scheduled for old and new guides: 9:30 - 11:30 a.m. on Tuesday, April 12; Monday, April 25th and one in May. For further information call Mrs. Ted Washburne, 255-9854.

Denver Botanic Gardens extends a cordial welcome to NEW MEMBERS: Sperry & Hutchinson, R.L. Randolph, Mr. Robert R. Satterlee, Miss Beverly V. Peterson, Mrs. Dorris C. Flores, Mrs. E. C. Payson, Mr. & Mrs. Ned L. Lucas, Mrs. Margaret G. Altvater, Mr. Ralph F. Arndt, Horticultural Arts Society, Colorado Springs, Flowerland Garden Center, Broomfield, Mrs. George McLane, Richard R. Inglis, Mrs. Charles A. Chidsey III, Mr. William Kirk Evans, Mr. Jack Robertson, Miss Blanche E.

Duncan, Mr. Robert E. Miller, N.C. Steel, Mrs. Dorothy M. Hill, Mr. & Mrs. George A. Stoecker, Mr. James J. Palmer, Dr. & Mrs. Bernard Hyman, Mievel A. Sanchez, Barbara Morrissey, Mabel Rutschman, Mrs. Lucian E. Pope, Mrs. Alta D. Gilbertson, Mr. & Mrs. Einar Saviz, Dr. & Mrs. W. Grayburn Davis, Dr. E. Stewart Taylor, Mrs. E. Miner Morrill Mrs. Max Kaplan, Mr. Donald P. Moore, Jane Patricia Wood, E.L. Zybura, Anna M. Parmley, Mr. William J. Malloy, Mrs. Francis Earle, Jr., Mrs. R. Anschicks, Mrs. James D. Ford, Mrs. A. P. Wilking, Mrs. George P. Caulkins, Jr., Mr. Robert D. Richardson, Mr. & Mrs. Donald E. Werschky

CALENDAR OF EVENTS Month of April

5)	9:30 a.m.	Gift Shop Committee	18)	9:30 a.m.	Plant Sale Forum - House plants
	10:00 a.m.	Editorial Sub-committee	19)	9:30 a.m.	Plant Sale Forum - Perennials
6)	4:00 p.m.	Children's Garden - Advanced Group	20)	9:30 a.m.	Plant Sale Forum - Annuals
7)	10:00 a.m.	Gift Shop Workshop	21)	10:00 a.m.	Around the Seasons Club
	4:00 p.m.	Children's Garden - Beginner's Group		7:30 p.m.	Dahlia Society
	7:30 p.m.	Orchid Society	22)	10:00 a.m.	Ikebana International
12)	10:00 a.m.	Herbarium Study Group		7:30 p.m.	Men's Garden Club of Denver
13)	9:30 a.m.	Denver Botanic Gardens Guild	24)	2:00 p.m.	Colorado Cactophiles
	2:00 p.m.	Editorial Committee	27)	9:30 a.m.	Garden Club of Denver - Flower Arranging Workshop
14)	7:30 p.m.	Denver Rose Society			
15)	7:30 p.m.	Botany Club			

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• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

Conservatory Superintendent, Ernest A. Bibee - 297-2810 Conservatory & Gift Shop - 297-2348

MAY 1966

GARDENING MEMORANDA

Early May is the last chance for planting bare-root trees and shrubs, including roses. Even then one should plant only a stock that has been kept in cold storage to prevent growth from starting. Balled-and-burlapped stock of both evergreen and deciduous species still can be planted successfully if it has been properly cared for after digging. Stock grown in containers can be planted anytime during the growing season.

May is planting time for annuals. In the Denver area, only the last few days of May are considered entirely safe from frost. Consequently, many gardeners plant all their annuals the 30th of May or later. Several of our annuals, or species used as annuals, however, will stand moderate frost if tempered to cold gradually. Among these are calendula, gloriosa daisy, Iceland poppy, larkspur, nierembergia, petunia, snapdragon and sweet alyssum. Properly hardened, these plants may be set out by the 10th of May without much danger of loss from freezing.

Gardeners who start such plants in hobby greenhouses or in warm rooms in their homes, should expose the plants out-of-doors for a few days at temperatures above freezing before setting them in their permanent locations. Much the same purpose can be accomplished by setting them out during mild weather and covering them for the next few nights if frost is predicted.

This is the time to start the annual war on dandelions in lawns. Dandelion killers are sold by all dealers in garden supplies. Apply as directed by the manufacturer. These chemicals work best after the dandelions have made considerable top growth and when the weather is warm. Remember that the best dandelion preventive is a dense grass sod. About mid-May is a good time to start fertilizing lawns that need it.

Most lawns will benefit from an application of an iron compound such as chelated iron or iron sulphate. Use chelated iron as directed on the package. Iron sulphate should be applied at a rate of from 1 to 3 pounds to the thousand square feet. It may be applied as a powder mixed with other fertilizer or dissolved in water and sprayed on the grass. Keep it away from concrete, light colored brick and stone.

ANNOUNCEMENTS

Annual Plant Sale to be held at Denver Botanic Gardens, 909 York Street, from 9:30 a.m. to 5:30 p.m. on Friday and Saturday, May 6 & 7. Corsages, house plants, bottle gardens, annuals, perennial herbs, cacti and many exotics will be available. There will also be a browsing area for BOOKWORMS where books and periodicals will be sold at very moderate prices

Gift Shop Workshop. There will be no session for this group in May because of the importance of preparing for the Plant Sale.

Conservatory Tour Guides are urgently needed. Because of the tremendous public response to the tour program we have been unable to carry the load. Call 297-2348 if you can participate as a tour guide and you will be contacted regarding an orientation program. This entails a morning or afternoon twice monthly. We desperately need your help in continuing with this fine educational program.

Large clumps of herbs are for sale now by the Denver Botanic Gardens Guild. Prospective buyers may call Mrs. Charles Arnold for details: 777-9404.

The Sunbonnet Garden Club of Aurora will present "Melody of Spring" flower show on May 31 at Luby's Cafeteria, Hoffman Height. The show is open to garden club members only due to size. Public is invited. No charge. 2:00 p.m. - 8:00 p.m.

Susan Ash's delightful CALLY COLUMBINE COLORING BOOK is available at the Gift Shop for the modest sum of 25¢. The pictures to be colored are of many native Colorado wild flowers and the colors to be used are indicated. This book appeals to children from the age of 4 to 10 and to some of the young-in-heart who are much, much more advanced in years.

Architectural pottery will be on display and for sale in the south room of the Conservatory during the Plant Sale. This is an opportunity to purchase outstanding patio pottery not usually available in Denver.

Welcome to New Members: Mr. Delburst S. Clark, Mr. Arthur T. S. Kent, Mr. G. J. Tomlin, H. Yanish, Kathryn Koehler, Dr. & Mrs. A. M. Patten, Rae W. Christensen, Miss Maude J. Reed, Mrs. Kenneth Russell and Mrs. William Graham. Dr. & Mrs. Donald N. Baldwin, Mr. & Mrs. G. Walter Bowman, Mrs. H. E. Day, Frank Miller, Mrs. R. H. Nagel, Mrs. Rogers Robinson, Mr. & Mrs. Burton A. Smead, Jr., Mrs. Joe A. Smeenk, Dr. & Mrs. Hermann B. Stein, Mr. & Mrs. Edward B. Wassom.

CALENDAR OF EVENTS

Month of May

2)	9:30 a.m.	Gift Shop Committee	16)	4:00 p.m.	Denver Botanic Gardens Board Meeting
	7:30 p.m.	Open Space Council	17)	1:00 p.m.	Rocky Mountain African Violet Council
5)	7:30 p.m.	Orchid Society	19)	10:00 a.m.	Around the Seasons
6)	9:30 a.m.	Plant Sale		7:30 p.m.	Dahlia Society
	5:30 p.m.		20)	7:30 p.m.	Botany Club
7)	9:30 a.m.	Plant Sale	22)	2:00 p.m.	Colorado Cactophiles
	5:30 p.m.		25)	9:30 a.m.	Garden Club of Denver Workshop
10)	10:00 a.m.	Herbarium Study Group	27)	10:00 a.m.	Ikebana International
11)	9:30 a.m.	Denver Botanic Gardens Guild		7:30 p.m.	Men's Garden Club of Denver
	2:00 p.m.	Editorial Committee	30)	Memorial Day - House Closed	
12)	9:00 a.m.	County Agricultural Agents			
	7:30 p.m.	Rose Society			

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GARDENING MEMORANDA

June 1966

By now, all seed stalks of tulips, daffodils and early flowering irises should have been cut off. Seed production is a drain on the plants. Instead of growing seeds, which you don't want, the plants had better be storing food in their underground bulbs or rhizomes for next year's flower crop.

Insects and mites got a considerable set-back by unseasonable freezes this spring. When the weather warms up, however, they can increase rapidly and may cause serious damage before you notice them. Watch especially for the large dark grayish aphids on cultivated forms of the native juniper tree, Juniperus scopulorum. These pests seem to work in spring and fall at lower temperatures than most other aphids. Their injury may first be noticed by scattered wisps of foliage that droop and dry up. The pests work mostly on the small branches at the base of the green foliage.

Spraying with malathion or a nicotine preparation will control them. Such sprays are most effective if applied during the warm part of the day.

Early June is the time to move certain house plants into the garden. Most of them will benefit by the change. Set them in full sun, partial shade or complete shade according to their individual requirements. Geraniums, coleus, poinsettias, azaleas, cacti, certain palms, pomegranates, figs, olives and various kinds of citrus fruits will tolerate full sunlight. Plants that have been growing indoors should be tempered gradually to full sunlight, otherwise they may sunburn. This conditioning may be done by setting them outside in the sun a few hours a day, gradually increasing the length of exposure. Some plants such as fibrous rooted begonias, fuchsias, and cyclamens are best in partial shade and others such as tuberous begonias, rex begonias, dieffenbachias, philodendrons and various forms of English ivy require almost complete shade.

In setting indoor plants into the garden some people remove the plants from the pots as in permanent planting. Certain plants, however, develop such enormous roots over summer that it is difficult to repot them in the fall. In most cases it will be better not to remove the plant from the pot but to "plunge" pot and all into holes or trenches dug in the ground, covering the pot entirely with soil.

It should be remembered that such plants have very restricted root systems and therefore they require more frequent watering than plants growing normally in the beds.

Of course, houseplants growing out-of-doors are exposed to much higher light intensity than they are accustomed to indoors. Consequently, they can utilize more mineral nutrients in the garden than they could indoors. An extra amount of fertilizer should be applied.

ANNOUNCEMENTS

A Party will be given in the Conservatory for new and old members of Denver Botanic Gardens on Thursday, June 2, from 4:00 p.m. to 6:00 p.m. This party offers the opportunity to renew old friendships and become acquainted with new members.

The Garden Club of Denver will present an Art Sale - Floral Display on June 14 and 15 in the Conservatory at Denver Botanic Gardens. Hours 10:00 a.m. to 5:00 p.m. As a special feature, the unusual and interesting artwork, which embraces many phases of handicrafts, will be for sale. There is no charge and the public is welcome. Contributions will be accepted for the benefit of the Conservatory.

The Annual Rose Show of the Denver Rose Society will be held on June 26, from 1:00 p.m. to 5:00 p.m. in the lobby of the First National Bank of Denver. Admission free.

Please note that all meetings scheduled to be held at Botanic Gardens House should be cleared through the engagement calendar with Mrs. Vincent. This is to avoid a possible conflict of such events.

The Library at Botanic Gardens House is now open according to the following schedule. Librarians in attendance are listed: Hours each day: 10:00 a.m. to 3:00 p.m. Monday, Mrs. Neil; Tuesday, Mrs. Hellriegel, Mrs. White; Wednesday, Miss Crissey, Mrs. Wasson; Thursday, Mrs. Wilson; and Saturday, Miss Crissey, Miss Bowers.

Welcome to New Members: Dr. & Mrs. Hewitt Ryan, Dr. & Mrs. Jack Beckner, Dr. Fred Kern, Jr., Mrs. William N. Cox, Mrs. H. G. Whittington, Mrs. William F. Fair, Mrs. Timothy Collins, Mrs. William Kilpatrick,

Mr. & Mrs. Jack Martin, Portia M. Kitchens
Mr. & Mrs. Arthur J. Seifert, Emma M. Beck
Mrs. Donald G. Langsley, Ruth A. McLaughlin
Mr. Warren Longley, Shwayder Bros., Inc.

The complete roster of new members in Denver Botanic Gardens as a result of the membership drive was not available at the deadline date for this month's Newsletter. Therefore, the list will be published in forthcoming issues. Our sincere thanks are expressed to the membership committee for their diligent efforts on behalf of Denver Botanic Gardens.

CALENDAR OF EVENTS June 1966

- | | | | | | |
|-----|------------|--------------------------------------|-----|------------|-------------------------------------------------|
| 2) | 10:00 a.m. | Gift Shop Workshop | 14) | 10:00 a.m. | Art Sale - Floral Display |
| | 4:00 p.m. | Membership Party in Conservatory | & | to | Garden Club of Denver in |
| | 7:30 p.m. | Orchid Society | 15) | 5:00 p.m. | in Conservatory |
| 3) | 12:00 noon | Civic Garden Club Luncheon & Meeting | 16) | 7:30 p.m. | Dahlia Society |
| 6) | 9:30 a.m. | Gift Shop Committee | 17) | 7:30 p.m. | Botany Club |
| | 7:30 p.m. | The Colorado Open Space Council | 22) | 9:30 a.m. | Garden Club of Denver Flower Arranging Workshop |
| 8) | 2:00 p.m. | The Green Thumb Editorial Committee | 24) | 10:00 a.m. | Ikebana International |
| 9) | 12:00 noon | Silver Spruce Garden Club Luncheon | | 7:30 p.m. | Men's Garden Club of Denver |
| 14) | 10:00 a.m. | Herbarium Study Group | | | |
| 15) | 12:45 p.m. | Carnation Home Makers Club | | | |

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Conservatory Superintendent, Ernest A. Bibee - 297-2810 Conservatory & Gift Shop - 297-2348
JULY 1966

The Terrace & Garden Tour, sponsored by the Denver Botanic Gardens Guild for the benefit of Denver Botanic Gardens, is scheduled for Wednesday, August 3, 10:00 a.m. to 5:00 p.m.

The nine gardens included in the tours this year have been selected for their outstanding beauty and special features.

The gardens to be shown are listed below with a brief note about their distinctive attractions:

Stanley Wallbank - 825 So. Adams - A large variety of plant material is included in this contemporary garden plan.

Homer Reed - 16 Polo Club Drive - a charming design with bonsai and other oriental accents.

Robert Blanchard - 3333 E. Kentucky - a garden designed in two levels with a waterfall and attractive plantings.

Dr. John Grow - 3390 E. Kentucky - contains fine display of espaliered trees and other unusual material.

Harold Sare - 3433 E. Kentucky - Raised flower beds backed by a curving brick wall.

John M. King - 26 Sunset Drive - A magnificent country estate with vast formal gardens.

Winston Howard - 4860 So. Dahlia - A country garden containing over 300 varieties of shrubs and trees.

Holbrook Mahn - 3800 E. Quincy - features beautiful sun garden with a spectacular view of the mountains.

Bill Lucking - 835 W. Quincy - an immaculate garden grown by a horticultural expert.

A garden expert will be stationed in each garden to answer questions.

Tickets are \$3.00 each. Tickets are available at: The Gift Shop at Denver Botanic Gardens Conservatory, located at the York Street Unit, and at the Colorado Federation of Garden Clubs office, 1556 Emerson Street or by calling

Mrs. Richard Wilson, 424-2742. Checks are payable to: Denver Botanic Gardens. Tax deductible.

Bus transportation will be available from the Denver Botanic Gardens House. Buses will leave at 10:00 a.m. and 1:00 p.m. \$1.00 per person. For reservations call Mrs. James Kilgroe, 237-3874.

Punch and cookies will be served free at the John M. King home, 26 Sunset Drive. Sandwiches will also be available.

In case of rain, the tour will be held the following day.

The Terrace and Garden Tour Chairmen are: General Chairman: Mrs. William McDougal. Ticket Co-Chairmen; Mrs. Richard Wilson, Mrs. Mackintosh Brown. Garden Finding Committee Co-Chairmen; Mrs. Earle Honnen, Mrs. William Russell. Publicity Chairman; Mrs. Thomas Payne. Hostess Chairman; Mrs. James Dyer. Signs and Supplies Chairman; Mrs. David Stone. Refreshments Chairman; Mrs. Loring Brock. Garden Expert Chairman; Mrs. Theodore Washburne. Transportation Chairman; Mrs. James Kilgroe.

ANNOUNCEMENTS

Trips into the foothills and to Mt. Goliath to observe and identify wild flowers will be scheduled at intervals during the summer under the auspices of Denver Botanic Gardens and the Denver Museum of Natural History. For information, call Dr. Brunquist at the museum 322-1808.

No Giftshop Workshop sessions will be conducted during the months of July and August. The next meeting will be held the first Thursday in September.

There are maps available of the rose gardens in City Park and the Denver Botanic Gardens York Street Unit. No charge. May be picked up at Botanic Gardens House and the Denver Museum of Natural History.

Tree Study in City Park. Mimeographed guides for three tours are available

at Botanic Gardens house. No charge.
The guides list and describe the many
interesting tree specimens in the park.

The new Conservatory Tour Program for
the summer is now in effect. Guides will
be present at the conservatory only between
1:00 and 4:00 p.m. daily, Sundays excluded.
Scheduled tours will be offered only at
2:00 p.m. Between the hours of 1:00 p.m.
and 2:00 p.m. (before tour) and 3:00 p.m.
and 4:00 p.m. (or after tour) guides will
offer assistance to visitors at the con-
servatory.

Welcome to New Members: Mrs. Hugh H.
McGee, Mrs. McNeil Fiske, Mrs. R. Stevens
Calender, Jr., Mrs. William Russell, Mr. &
Mrs. Gene Warner, Mrs. Carlton M. Dean, Mrs.
John Lunt, Mr. John H. Gaskin, Sr., Mrs.
Emery Eigsti, Mrs. W. Lyle Forbes, Mrs.
David W. Hall, Mrs. Clarence O. Hughes, Mrs.

Bruce Raton, Mr. & Mrs. Ronald Kiepe, Mrs.
Wendell A. Tisdel, Mr. & Mrs. William
Bourke, Mrs. Sallie L. Waggener, Mrs.
Harriet Berenbaum, Mrs. Ruth Kulik, Mrs.
R. S. Grier, Mrs. John L. Sneed, Mrs. Har-
D. Gilchrist, Dr. Cameron E. Berry, Mr. &
Mrs. Dan Read, Mrs. Lee R. Hill, Mrs. Joh
M. Law, Mr. & Mrs. Paul V. Murray, Mr. &
Mrs. Samuel T. Milliken, Mrs. John J.
Wanner, Mrs. C. F. Skannal, Dr. & Mrs.
William C. Black, Dr. & Mrs. Lloyd V.
Shields, Mr. J. W. Hepburn, Mr. & Mrs. Joh
B. Grow, Jr., Mrs. Roy Jacobson, Mrs. R.
H. Shanahan, Dr. & Mrs. Leo J. DeLauro,
Dr. & Mrs. Don V. Benkendorf, W. Allen
Conklin, Mrs. Don F. Allen, Mr. & Mrs.
William Falkenberg, Mr. & Mrs. Gene Hamby
Mr. & Mrs. Lester R. Woodward, Mrs. T. N.
Jordan, Mr. & Mrs. John N. Dahle, Mrs.
Thomas J. Carson, Mr. & Mrs. Jack S. Dros
Mrs. Anson Mark, Mrs. Frank Thompson, Mrs
Gerald B. Burton, Mrs. James E. Bye.

CALENDAR OF EVENTS July 1966

- 4) Holiday. House closed
13) 2:00 p.m. The Green Thumb Editorial
 Committee
15) 7:30 p.m. Botany Club
17) 3:30 p.m. Rose Society Outdoor Supper
18) 4:00 p.m. Denver Botanic Gardens Board
 of Trustees

- 21) 7:30 p.m. Dahlia Society
22) 10:00 a.m. Ikebana International
 7:30 p.m. Men's Garden Club of
 Denver
24) 2:00 p.m. Colorado Cactophiles
27) 9:30 a.m. Garden Club of Denver
 Workshop

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AUGUST 1966

GARDENING MEMORANDA

Keep up the "hot war" on insects and mites. These pests have been unusually troublesome this year and they are not likely to slacken their destructive efforts as fall approaches. Watch particularly for spider mites on juniper, spruce and fir trees, roses, spirea, shrubby cinquefoil, native thimbleberry and raspberry and on such flowers as delphinium, phlox and hollyhock.

Aphids often increase their activities during the hot August weather. They can be particularly troublesome on juniper trees, roses, spirea, goldenglow, goldenrod, dahlia, nasturtium, calendula and waterlilies. Spraying with malathion will control both of these pests. A second application about 2 weeks after the first may be necessary to clean up heavy infestations.

Grapevines and their near relatives Virginia creeper, Boston ivy, St. Paul ivy, and Engelmann ivy are very susceptible to leafhopper damage. Hot, dry August weather favors rapid increase of this pest. The foliage of infested vines first shows milky-white streaks. Later the leaves turn brown. On shaking an infested vine, one can see a cloud of tiny white insects fly up. This pest is easily controlled by spraying with DDT.

August is planting time for peonies, oriental poppies and madonna lilies. Irises, which you neglected to plant earlier, may still be planted. If you have some chrysanthemums that you would like to move, do it now. Simply lift the whole clump and set it in the new location with the least possible disturbance of roots or the soil around them.

If your plantings of annuals seem to lack vigor and are not living up to your expectations, try a foliage fertilization with some soluble material such as Ra-pid-gro. This will often produce gratifying results.

Watch for weeds lurking in out-of-the-

way places or hidden in perennial clumps or among shrubs. Pull or dig them out now before they go to seed.

ANNOUNCEMENTS

The Terrace and Garden Tour is scheduled for Wednesday, August 3, 10:00 a.m. to 5:00 p.m. Tickets are \$3.00. Bus transportation will be available from Botanic Gardens House at 10:00 a.m. and 1:00 p.m. at a cost of \$1.00 per person. Check your July Newsletter for the list of gardens included in the tour and for other details.

Denver Botanic Gardens will sponsor a display of water color paintings in the conservatory from August 8 through the 14. These beautiful paintings by Mr. Lee Adams depict tropical fruits and flowers in accurate botanical detail. They have been enthusiastically praised by critics throughout the country and have gained Mr. Adams international recognition.

The artist, a native of Florida, became interested in tropical plant life in his early youth and, later, began depicting it on canvas. From this interest emerged his dedication to his art, which he expresses in this statement: "Limited by a palette of a few carefully selected pigments, with subtle nuances of light and shadow I attempt to transmit to the beholder my own interpretation of what I have seen and felt. The tilt of a petal, the moment of a bird in song, the sunlight glancing from a leaf-these things must become alive. I must paint life into the page!"

The public is invited to view Mr. Adams' paintings. There is no admission charge.

The many friends of Mrs. Hellriegel, who has been a volunteer librarian at Botanic Gardens House for many years, wish to express sympathy to her for the loss of her husband, Arthur, who died recently.

Denver Botanic Gardens extends a cordial welcome to NEW MEMBERS: H. W. Lindenmeier, Mrs. Hugh Hatcher, Mr. & Mrs. Justin East, Mr. & Mrs. Robert M. Ware, Dr. & Mrs. Warren E. Cooper, Mrs. Philip G. Dufford, Dr. & Mrs. Ralph Cotton, Mr. & Mrs. Canton O'Donnell, Jr., Mr. & Mrs. Robert M. Buckland, Mrs. William B. Shepard, Mr. & Mrs. Arthur L. Knott, Mrs. Eleanor Witt, Mrs. Howard Bramley, Mrs. B. E. Bump, Mrs. Charles Parker, Mrs. John Swartz, Mrs. F. Joseph McGarry, Mr. & Mrs. William M. Griffith, Miss Jo Ann Hayes, Mrs. Frances Holland, Jr., Mrs. F. Stuart Howard, Mr. & Mrs. Richard Wohlgenant, Mr. & Mrs. Arthur Zohn, Mrs. T. D. Nevens, Mrs. Patrick Eldredge, Mr. & Mrs. Laird Campbell, Mr. & Mrs. Phillip W. Schoelzel, My Pharmacy, Mrs. Kirby McAlister, Miss Elizabeth Chester, Mr. H. Bissell Carey, Mrs. Richard K. Sommer, Mr. Rowe Rudolph, Sr., Mrs. Adrian de Coninck, Mrs. Robert Pulcipher, Mrs. Dan Simmons,

Mrs. Pat Stout, Mrs. Gerald W. Stewart, Mrs. Nell Rapp, Mrs. Lowell S. Porter, Mrs. David A. Reed, Jr., Dr. & Mrs. Richard M. Hamer, Mr. Joseph J. Couwlier, Mr. & Mrs. H. E. Day, Mrs. Robert Priester, Kate and Julie McKevitt, Mr. & Mrs. Hugh Wheeler, Mr. & Mrs. John W. Jessup, Mr. & Mrs. Richard Woulfe, Mrs. W. E. Mayer, Mrs. C. M. Schrepferman, Mrs. James Turic, Mrs. R. L. Schrepferman, Mrs. Barry W. Frank, Mr. & Mrs. Vester C. Bradley, Jr., Dr. Miles R. Markley, Dr. & Mrs. Robert E. Dean, Dr. & Mrs. Robert P. Stanton, Dr. & Mrs. Cosmo G. MacKenzie, Dr. & Mrs. Theodore Puck, Dr & Mrs. Saul H. Bassow, Jr., Dr. & Mrs. David L. Cowen, Mrs. C. O. Frisbie, Dr. & Mrs. Alan Friedland, Mrs. Robert E. Holmes Jr., Mrs. Philip T. Davis, Mr. & Mrs. Richard Downing, Jr., Dr. & Mrs. David E. Hutchison, Mrs. Charles Vail, Mrs. Conrad O'Connor, James D. Grow, Mr. & Mrs. S. H. Peterson, Mr. & Mrs. J. C. Jeurink

CALENDAR OF EVENTS August 1966

1)	9:30 a.m.	Gift Shop Committee	14)	5:00 p.m.	Rose Society Lawn Supper
2)	7:30 p.m.	Dahlia Society	18)	7:30 p.m.	Dahlia Society
3)	10:00 a.m.) 5:00 p.m.)	Terrace & Garden Tour	19)	7:30 p.m.	Botany Club of Denver
9)	10:00 a.m.	Herbarium Study Group	24)	9:30 a.m.	Garden Club of Denver Workshop
10)	2:00 p.m.	Green Thumb Editorial Committee	26)	10:00 a.m. 7:30 p.m.	Ikebana International Mens' Garden Club of Denver
11)	1:00 p.m.	Washington Park Garden Club Tea	28)	2:00 p.m.	Colorado Cactophiles
14)	9:30 a.m.	National Extension Homemakers' Conference, Tour and Luncheon			

DENVER BOTANIC GARDENS, INC.
909 York Street, Denver, Colorado 80206

<i>Non-Profit Org.</i>
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Green Thumb Newsletter

Dr. Louis B. Martin, Director

DR. A. C. HILDRETH, ~~Brookside~~ Consultant

HELEN M. VINCENT, Editor

LAWRENCE A. LONG, President

DENVER BOTANIC GARDENS, INC.

909 YORK

TELEPHONE: 297-2428 or 297-2632

Conservatory Superintendent, Ernest A. Bibee - 297-2810 Conservatory & Gift Shop - 297-2348

SEPTEMBER 1966

GARDENING MEMORANDA

September is a time when gardeners catch up on work they have been neglecting. Flower seeds that you intended to pick earlier can still be collected from most plants. Even though much of it has already shattered, you can usually find a few stalks that carry some seed.

Tall bearded irises, oriental poppies and perennial phlox are best divided and planted earlier, but this work can still be done this month.

If you have been neglecting to move some chrysanthemums, do it now. Simply dig the whole clump with as little disturbance of the roots as possible, and set it into a hole already made. It doesn't matter if the clump is in full bloom.

This is a good time to make a cleanup of weeds in the lawn. Annual weeds such as Milky Spurge and Purslane will be prevented from scattering their seeds for next year's weed crop. Perennial weeds such as dandelions, chickweed, plantain and clover (if you call it a weed) can be eliminated now so that you can start next year with a clean lawn. There are weed killers on the market that will control all these weeds. There are even bentgrass killers that will worry down the bentgrass in mixed bluegrass-bentgrass lawns, so that the bluegrass can take over.

Crabgrass? There are weed-killers that will kill it now, but after you have lived with it all summer perhaps you had better let the frost kill it and depend on pre-emergence treatment to prevent the seed from germinating next spring. No seed germination - no crabgrass!

September is normal planting time for several perennials. Chief among these are the "Dutch bulbs", tulips, daffodils, hyacinths, crocuses and others less well known. These should be planted as soon as they appear on the market. This is usually about the third week in September. The bulbs should not be kept out of the ground longer than is necessary for their transportation and marketing. They

do not improve on dealers' shelves. If you want to dig and divide an old planting of such bulbs do it now and replant them immediately. The bulbs do not need to be dried before replanting.

Other perennials that can be divided and planted this month are Siberian and spuria irises and peonies. If you would prefer to do the work now rather than in spring, Shasta daisies can be divided this month.

September is a favorite time for planting lawns, whether by sodding or by seeding. Take time to prepare the soil thoroughly.

Keep up the relentless war on weeds, and particularly don't let them go to seed. In fall every plant seems to be hurrying to produce seed before fall freezes cut short its career. At this season even very small specimens of normally tall weeds will mature seed clusters that are barely off the ground. Watch closely for them.

ANNOUNCEMENTS

Please note that the library at Botanic Gardens House will be closed on the following Saturdays during October and November: October 1, 8, 22, and 29; November 5. Our volunteer librarian, Miss Crissey, will be enjoying a vacation during that time and we wish her a very happy holiday.

Ikebana International will present an Ikebana Exhibit (Japanese Flower Arrangements) in the south room of the Conservatory on Saturday and Sunday, September 24 and 25. There will be a variety of beautiful arrangements inspired by the different schools of thought. Saturday hours: 9:00 a.m. to 8:00 p.m. Sunday hours: 9:00 a.m. to 5:30 p.m. Chairman Mrs. William George - 442-7290. The

public is invited. Admission: \$1.00.

The Presidents' Council of Denver will sponsor a Silver Tea in the South Room of the Conservatory on Sunday, September 18, from 2:00 p.m. to 4:00 p.m. Proceeds are for the benefit of Denver Botanic Gardens. The public is cordially invited.

Welcome to New Members: Mrs. David S. Tilden, Mrs. Albert Sellke, Mr. & Mrs. A. Frank Viek, Jr., Mrs. L. N. Richards, Jr., Joy Wilson, Mr. & Mrs. Don Mooney, Dr. & Mrs. Walter E. Meihoff, Mrs. W. G. Sumners, Jr., Mr. & Mrs. Jan J. Wegardt, Mr. & Mrs. Lawrence H. Gill, Mr. & Mrs. E. William Andrews, Mrs. Karl E. Sussman, Mr. & Mrs. Robert W. Rodda, Mr. & Mrs. D. F. Douglas, Mr. & Mrs. A. D. Cottingham, Mrs. J. Michael Farley, Mr. & Mrs. John Lovato, Ruth Hawkins, Mr. & Mrs. James W. Case, Patricia C. Tolle,

H. L. Guard, M. D., Mr. & Mrs. James R. Birrell, Miss Margaret J. Silces, Mrs. Grace M. Vick Roy, Mrs. George M. Mansfield, Mrs. William G. Saunderson, Mrs. William W. Hubbell, Mrs. Paul West, Mrs. Eugene D. Hill, Jr., Mrs. William G. Berge, Mrs. Ralph L. Schwartz, Mrs. Richard Binner, Mrs. Sam S. Bloom, Mrs. Harry Bowles, Carolyn Fuller, Ray Howe, Mrs. Marion F. Jones, Mrs. Nevin Palley, Mrs. Werner M. Gross, Mrs. Edwin G. Alexander, Mrs. D. D. Hanna, Mr. & Mrs. George K. Hayden, Mr. & Mrs. Robert M. O'Donnell, Mr. & Mrs. Shirley A. Johnson Jr., Mr. & Mrs. William W. Argall, Mr. & Mrs. Joseph G. Wagner, H. H. Nees, Mrs. Park Williams, Edward F. Hill, Mrs. Christopher Dobbins, Mrs. Carl C. Madsen Mr. L. E. von Gunten, Mrs. L. Stanley Blue, Mr. & Mrs. Earl Kenney, Mr. & Mrs. A. Paul Shermack, Mrs. Charles S. Thomas

CALENDAR OF EVENTS
Month of September

- | | | |
|-----|------------|-------------------------------------|
| 1) | 10:00 a.m. | Gift Shop Workshop |
| | 7:30 p.m. | Orchid Society |
| 5) | Holiday | House Closed |
| 7) | 12:00 noon | Colorado Garden Show Board meeting |
| 8) | 7:30 p.m. | Rose Society |
| 14) | 10:00 a.m. | Herbarium Study Group |
| | 2:00 p.m. | The Green Thumb Editorial Committee |
| 15) | 10:00 a.m. | Around the Seasons |
| | 7:30 p.m. | Dahlia Society |
| 16) | 7:30 p.m. | Botany Club |
| 18) | 2:00 p.m.- | Presidents' Council of |
| | 4:00 p.m. | Denver Tea in Conservatory |

- | | | |
|-----|------------|------------------------------------------|
| 19) | 4:00 p.m. | Denver Botanic Gardens Board of Trustees |
| 20) | 1:00 p.m. | Rocky Mountain African Violet Council |
| 22) | 2:00 p.m. | Civic Garden Club - Past Presidents Tea |
| 23) | 9:00 a.m.- | Ikebana Exhibit 8:00 p.m. |
| 24) | 9:00 a.m.- | Ikebana Exhibit 5:30 p.m. |
| 28) | 9:30 a.m. | Garden Club of Denver Workshop |

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DR. A. C. HILDRETH, ~~xxxxx~~ Consultant
Dr. Louis B. Martin, Director

HELEN M. VINCENT, Editor

DENVER BOTANIC GARDENS, INC.

• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

OCTOBER 1966

GARDENING MEMORANDA

If your garden has thus far escaped damaging frost you may expect this annual event anytime now. Prepare for it at once. Dig out pots of house plants that you have been summering out-of-doors by plunging the pots in soil. Clean the pots and repot any plants that are badly root-bound. Trim the tops to the desired size and place the plants in the home according to their light and temperature requirements.

You may want to take up some of the tender perennials used as bedding plants such as geranium, coleus, fibrous-root begonia and fuchsia to grow as house plants over winter. Be certain that the pots are large enough to hold the roots without crowding. Use a porous potting soil. Cut back both the roots and tops severely and let the plant form a new top. Keep the soil moist but do not over-water.

Gardeners sometimes dig annuals from beds and borders in October, pot them and bring them indoors to continue growth and flowering. With true annual plants such as marigold, zinnia, celosia, portulaca, larkspur, China aster, ageratum and annual phlox, such attempts are usually disappointing. Much of the root system is destroyed in the process and will not adequately support the plant. Then too, it is too near the end of their life cycle to expect full recovery from transplanting shock.

With certain tender perennials ordinarily treated as annuals the results are somewhat better. Large tops of petunias and snapdragons may be cut back somewhat and may eventually make satisfactory plants. In general, however, it is not worth the effort.

Cuttings of various tender perennials should be taken now if you wish to propagate them for next year's beds and borders. Only a few can be accommodated in the ordinary home but home greenhouses can produce an abundance of plants of your favorite varieties.

Set out "bulbs" of tulips, daffodils, hyacinth, crocus, grape hyacinth and squill at once. These bulbs do not improve in the dealers' bins.

Try potting a few of these bulbs for forcing during the winter. Use ordinary flower pots or bulb pans and a porous soil. A six-inch flower pot will hold five or six tulip bulbs. Set bulbs in the pot so that their "noses" (tops) are about a half inch below the rim of the pot. Water thoroughly

For plunging the pots, select a cool spot - perhaps on the north side of a building but away from the wall of a heated basement. Dig a pit or trench about a foot deep. Fill in about 3 inches of coarse sand or fine gravel. Stand the pots on this layer and fill between the pots and cover them with soil or with peat or leaf-mold, then water. When the surface begins to freeze, cover with a few inches of peat or leafmold.

Within about two months you can begin forcing. Remove some of the pots and keep them in a cool place where the temperature does not go above 50 degrees and where the light is not intense. After the tops have made a few inches of growth bring the pots into a light place where the temperature is not above 70 degrees until the buds begin to open. During the flowering period you will want to keep them where you can see them, probably at living room temperature. The flowers will last longer if the plants are placed in a cool room at night.

Sometime soon you will most likely have a frost that will kill the tender annuals such as zinnias, portulacas and celosias. Do not get panicky and rip out all annuals from your beds and borders. Several annuals such as petunias, marigolds, snapdragons, calendulas and nierembergias will endure rather severe frosts if they are gradually tempered to cold. Often for a month after the first frost they will brighten the fall landscape if given a chance.

ANNOUNCEMENTS

The library at Botanic Gardens House will be closed on the following Saturdays during October and November: October 1, 8, 15, 22, and 29; November 5.

Mark your calendar for the Annual African Violet Sale sponsored by the Rocky Mountain African Violet Council. This is your ideal opportunity to buy your new plants because all of the material is choice. A portion of the proceeds benefits Denver Botanic Gardens. Sale will be held at Botanic Gardens House, 9:00 a.m. to 4:00 p.m., Saturday, October 15.

The following books of interest are now available in the library: Gertrude Foster, Herbs for Every Garden; Molly Price, The Iris Book, both gifts from Mrs. Bern Neil. Also, Louisa Ward Arps and Elinor Eppich

Kingery, High Country Names, gift of Mrs. Ed Honnen.

HERBARIUM STUDY COMMITTEE - Any persons interested in learning to identify plants are welcome to attend a meeting. A short instruction period will be held from 10-10:30 a.m. on the second Tuesday of every month at Botanic Gardens House.

Tour Guides Needed: More guides are needed to expand the program to meet the public needs. Tours of duty are 4 hours either morning, afternoon or Friday evening. No experience necessary. Instruction is provided. If interested, call Mrs. Graham Morrison, 424-0706 or 297-2348 and leave your name and telephone number.

Due to lack of space, Welcome to New Members will be listed next month.

CALENDAR OF EVENTS Month of October

- | | | | | | |
|-----|------------|---------------------------------------------------------------------|-----|------------|-----------------------------------------------------------------------|
| 3) | 9:30 a.m. | Gift Shop Committee | 15) | 9:00 a.m. | African Violet Society Plant Sale |
| 6) | 10:00 a.m. | Gift Shop Workshop | 19) | 12:45 p.m. | Civic Garden Club, Division B. Meeting - Luncheon - Conservatory Tour |
| 7) | 7:30 p.m. | Orchid Society in Conservatory | 20) | 10:00 a.m. | Around the Seasons Club |
| 8) | | Orchid Show in Conservatory | | 7:30 p.m. | Dahlia Society |
| 9) | | Orchid Show in Conservatory | 21) | 7:30 p.m. | Botany Club |
| 10) | 10:00 a.m. | Herbarium Study Group | 23) | 2:00 p.m. | Colorado Cactophiles |
| | 2:00 p.m. | Green Thumb Editorial Committee | 28) | 10:00 a.m. | Ikebana International Men's Garden Club of Denver |
| 12) | 9:30 a.m. | Denver Botanic Gardens Guild | | 7:30 p.m. | |
| | 4:00 p.m. | Associates of Denver Botanic Gardens Annual Meeting in Conservatory | | | |
| 13) | 7:30 p.m. | Denver Rose Society | | | |

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Conservatory Superintendent, Ernest A. Bibee - 297-2810 Conservatory & Gift Shop - 297-2348

NOVEMBER 1966

GARDENING MEMORANDA

November is the time to prepare the garden for winter. Proper measures taken now may make the difference between success and failure of a planting.

Protect Tree Trunks: Trunks of all deciduous trees which you planted this spring should be wrapped now for winter protection. Also trunks of all young smooth-barked trees such as mountain ash, redbud, cherry, linden and maple should be shaded to protect them from winter sunshine, especially on the south and west sides. Low-angled winter sun striking on such trees may cause sunscald of the bark.

The neatest and most satisfactory way to shade or protect tree trunks over winter is by wrapping them with a special paper wrap available at garden supply stores. Such wrappings may be taken off in spring or left on from year to year. They not only provide shade but prevent drying out of the bark and give some protection from scratching cats, gnawing squirrels and young children.

Watering: Keep the lawn well watered during November so that the grass will stay green as long as possible. This will improve the appearance and keep the grass from drying out during dry, windy fall weather. Also make a note to water the lawn occasionally during warm spells in winter and early spring.

Put your trees and shrubs to bed for the winter with wet feet. In late November water all trees heavily so that the water will penetrate the soil deeply. This is particularly important for evergreens and birches and for all trees and shrubs that were planted this year.

November watering of perennials, particularly those transplanted in late summer or fall, will help prevent winter losses.

Leaves: Rake up leaves from the lawn to prevent their packing down and injuring the grass. It is hoped that you have a compost pile where you can save the leaves rather than send them to the dump.

Evergreens: If your upright junipers were broken or splayed out of shape by the October snow, prune off the broken branches and tie the wayward branches back in place, before another heavy snow causes further damage. Twists are fine for the small tying jobs.

A LOOK AHEAD FOR 1967

Here's your invitation to join the Los Angeles Botanical Gardens Guided Tour in mid-April 1967. The Tour is open to members of the Denver Botanic Gardens only. Just three days and two nights can be richly rewarding--visiting nationally recognized botanic gardens and arboreta of Southern California. At an approximate expense of \$200.00 per person, to include lodging, meals and travel, you will enjoy a colorful real life adventure.

The profile Tour through the southland will include: Los Angeles State and County Arboretum, Arcadia (Introduced flowering trees; a flower show); Descanso Gardens, La Canada (Camellias, sip Jasmine tea in a Japanese Tea Garden); Huntington Botanic Gardens, San Marino (Library, Art Gallery, cactus and palm collections); Rancho Santa Ana Botanic Garden, Claremont (Native plant of California in full bloom).

Together with the educational aspect of this Tour, you will visit: the new Los Angeles County Art Museum; the new Los Angeles Music Center; the Wilshire Boulevard stores of exceptional quality; the original Farmer's Market for lunch; and Padua Hills, renowned for its Mexican cuisine and its after dinner Mexican theater.

Now, this announcement is for a 'show of hands' of probable Tour members. Is there sufficient interest and intent in such a tour? We really must know by the end of November, in order to complete the plans. Please contact Mrs. Alice Willis at the Denver Botanic Gardens office as soon as possible if you think you will be going

with us. Thank you.

1967 Colorado Garden and Home Show. Note the earlier dates: Saturday, February 4 through Sunday, February 12. This is the 8th annual show and will be held at the Denver Coliseum and Western Buildings.

Theme this year will be "Gardens from Around the World", with distinctively designed gardens created by leading regional firms.

Many new and interesting product and service displays will be combined with the theme displays. Mr. Haughton says: "We will follow the proven pattern of producing a show which offers the latest in garden and home features, special theme exhibits and a competitive flower show, which we feel

follows the interests of the Colorado public." Attendance is expected to exceed 75,000. The Colorado Garden and Home Show is sponsored by Denver Botanic Gardens, Inc

November 30, 1966, 8:00 p.m. First Lecture in the 1966-67 Series at Botanic Gardens House. Jack Fason, Authority on Biological Photography will discuss "Techniques of Biological Photography" with illustrations. Admission \$1.00. Seating capacity limited to 60. Tickets available at Denver Botanic Gardens House.

Herb Vinegar is again available from the Denver Botanic Gardens Guild. This gourmet treat sells for \$1.00 per pint. Hurry and place your order with Mrs. Ferguson at 798-7388. Pick up at Botanic Gardens House on December 14.

CALENDAR OF EVENTS Month of November

- | | | | | | |
|-----|------------|------------------------------------------------------------|-----|------------|--------------------------------------------------------------------------------------------|
| 3) | 10:00 a.m. | Gift Shop Workshop | 17) | 7:30 p.m. | Dahlia Society (Date may be changed) |
| | 7:30 p.m. | Orchid Society | 18) | 8:00 a.m. | Colorado Parks Dept. Annual meeting (Botanic Gardens House & Conservatory) |
| 4) | 11:15 a.m. | Civic Garden Board Meeting followed by Luncheon | 21) | 4:00 p.m. | Denver Botanic Gardens Board |
| 7) | 9:30 a.m. | Gift Shop Committee | 24) | | House Closed - Thanksgiving Day |
| | 7:30 p.m. | Swingle Study Group | 25) | 10:00 a.m. | Ikebana International Men's Garden Club of Denver |
| 8) | | House Closed - Election Day | 27) | 7:30 p.m. | Colorado Cactophiles |
| 9) | 9:30 a.m. | Denver Botanic Gardens Guild | 30) | 8:00 p.m. | First Lecture of 1966-67 Series - Jack Fason - Close-up Photography of Biological Subjects |
| 11) | | House Closed - Veteran's Day | | | |
| 12) | 1:00 p.m. | Conservatory South Room - African Violet Council of Judges | | | |
| 15) | 12:30 p.m. | Rocky Mountain African Violet Council | | | |
| 17) | 10:00 a.m. | Around the Seasons Club | | | |
| | 8:00 a.m. | Conservatory - Colorado Parks Dept. Annual Meeting | | | |

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DECEMBER 1966

GARDENING TIPS BY AN EXPERIENCED GARDENER

October 13 was a nice warm day for a ride to see the fall colors. We drove through Washington and Cheesman Parks and found the colors "out of this world". The American linden was never as colorful as this year and the hawthorn and American elm were a sight to behold. I captured the beautiful colors on slides which turned out well. Despite a few clouds in the sky this day, there were no indications of a storm. Twelve hours later the picture was in black in white. It snowed heavily and the following morning, the beautiful trees, which were in full leaf, began to sag under the moisture-laden cover. This seems to happen here every five or six years.

There was a lot of damage to the tree limbs. As this is being written, I hope that most of the limbs and brush have been cleaned up. However, the trimming and repair of the trees will go on for months in order to get them back in shape. The most important thing is to get all the loose and hanging branches down, for they are a hazard. Some limbs on large trees may be just split and may be saved by cabling or bolting to the main trunk. Other trees were damaged so badly that they will have to be removed. Chinese elm suffered the most damage and the maples were badly broken. Honey locust. European linden, oak and cottonwood were not as severely affected. If you are not familiar with tree trimming, it is best to get a reliable tree surgeon to perform any needed repair. In most cases, with proper care, the trees will eventually recover.

All trees (including evergreens) perennials, roses and bulbs like to go into the winter with wet feet. This is a good time of the year to check on the moisture in the ground. The soil should be moist fairly deep so that, if we have a prolonged dry spell, the dryness will be only on the surface and of little consequence.

Dry lawns should be given a thorough watering before the ground freezes. Peonies need considerable moisture in the fall for successful development of new buds. They have deep roots and therefore require deep watering to prevent "blind" flower buds. It is not too late to

give peonies a feeding of phosphate and potash.

Tulip bulbs need moisture in the fall and winter when they make most of their root growth. It is a mistake to plant tulips on the south side of a building. A few warm days in the spring will cause them to grow above the soil and the almost inevitable freeze will nip the tender shoots. If you do have tulips planted south of or close to a building, keep the beds wet. Late in the winter, mulch them with leaf or peat mold, two to three inches in depth. This practice is also applicable to other beds after the ground is frozen. This will help to provide a longer blooming period.

Some plants need protection from the winter sun and the drying winds prevalent in this area. Almost all perennial plants are considered hardy here. Creeping phlox, shasta daisy and primrose need a little protection. Scatter a few leaves over these plants or, even better, some evergreen boughs just to keep the wind and sun from burning the foliage. A light mulch over the perennial beds will help to conserve the moisture. Don't let your perennials go into the winter with dry feet.

Some of the shrubs also need winter protection. Mahonia aquifolium, if planted on the south or west, and pyracantha should be protected. Some of the newly planted trees and trees such as the linden, mountain ash, hard maple and birch require protection. Their trunks can be wrapped with a tape commercially available.

Roses should be mounded with soil around the base to keep the buds from drying out. (For complete winter rose care get The Green Thumb Rose Manual by Clyde E. Learned.)

ANNOUNCEMENTS

A street address has been assigned to the Boettcher Memorial Conservatory: 1005 York St., Denver, Colo. 80206. Please use it on all mail intended for Mr. Bibee and the Gift Shop. This will facilitate delivery.

Correction: To order herb vinegar, call Mrs.

Mrs. Ferguson at 798-3788. The telephone number was given incorrectly in the November Newsletter.

SECOND NOTICE: LOS ANGELES BOTANIC GARDENS TOUR

Coming soon, by mail, will be an information bulletin giving details about our planned trip to Los Angeles to tour outstanding botanic gardens and arboreta. We can tell you that the dates are set: Friday, Saturday and Sunday, April 14, 15 and 16. Please mark these dates now and when you receive the Special Tour Bulletin, contact Mrs. Alice Willis at Botanic Gardens House and place your name on the Tour list. Remember: this could be a Christmas gift to someone in the family.

Christmas Tree Trimming Party. Members of the Associates of Denver Botanic Gardens and their

families will meet at Boettcher Memorial Conservatory the evening of December 8 to decorate the building and trim a tree. An old-fashioned get-together is planned for stringing popcorn and cranberries and making door swags and other decorations. Refreshments will be served, so bake a batch of cookies and join the party. The South Room will be open at 6:30 p.m.

Instructions for Conservatory Tour Guides will be given in the Conservatory each Wednesday morning from 10:00 a.m. to 12:00 noon and each Friday evening from 7:30 p.m. to 9:00 p.m. Telephone: 297-2348 for further information.

CALENDAR OF EVENTS

Month of December

(Unless Otherwise Indicated These Are House Meetings)

- | | | | |
|---------------|--------------------------------------|---------------------------------------------|----------------------------------|
| 1) 10:00 a.m. | Giftshop Workshop - Main Room | 7) 1:00 p.m. | Conservatory Guides Meeting - |
| 7:30 p.m. | Orchid Society - Main Room | 8) 7:30 p.m. | <u>Conservatory</u> |
| 2) 12:00 noon | Civic Garden Club, Luncheon- | 12) 7:30 p.m. | Public Service Co. Group-Main R. |
| | Main & Dining Room | 13) 10:00 a.m. | " " " " " |
| 5) 7:30 p.m. | Dahlia Society - Main Room | 13) 2:00 p.m. | Herbarium Study Group - 2nd Fl. |
| 9:30 a.m. | Gift Shop Committee - Dining R. | 15) 10:00 a.m. | Green Thumb Edit. Committee - |
| 6:30 p.m. | Plains Conservation Center | 15) 2:00 p.m. | Dining Room |
| | Annual Meeting - <u>Conservatory</u> | 16) 7:30 p.m. | Around the Seasons Meeting- |
| 7:30 p.m. | Swingle Study Group-Dining R. | 16) 2:00 p.m. | Holiday Buffet - Main & Dining |
| 7:30 p.m. | Open Space Council - Main R. | 18) 7:30 p.m. | Botany Club - Main Room |
| 6) 7:30 p.m. | Public Service Co. Group - Main | 18) 2:00 p.m. | Colorado Cactophiles - Main R. |
| 7) 9:00 a.m. | Denver Botanic Gardens Guild | 26) House Closed Because Christmas Falls on | Sunday |
| | (Christmas Garlands) | | |

DENVER BOTANIC GARDENS, INC.

909 York Street, Denver, Colorado 80206

Non-Profit Org.

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Denver, Colorado

Green Thumb Newsletter

LAWRENCE A. LONG, President

DR. A. C. HILDRETH, Director

MARILYN HOLMES, Volunteer Editor

DENVER BOTANIC GARDENS, INC. • 909 YORK • Telephone: 297-2428 or 297-2632 • March, 1965

GARDENING MEMORANDA

Deciduous trees and shrubs, evergreens and woody vines can be planted as soon as the soil thaws and becomes workable. Make certain that the planting hole is large enough to contain the roots without cramping. The roots should be covered with a mixture of soil and organic matter such as leaf mold or peat. After backfilling nearly to the top thoroughly soak the soil with water to settle it around the roots. After the water has soaked away finish filling the hole.

Plant seeds of sweet peas, calendulas, cosmos, larkspur, and bachelor button in garden beds about the middle of the month if the ground is not frozen.

Prepare beds for annuals as soon as the soil can be worked. Apply two or three inches of peat, leaf mold or well composted manure and work deeply into the soil.

An early **spring application of manure or manure-peat mixtures to lawns** is a common practice in our area. Whether this is a worth while practice is debatable. The quantity of nutrients in manure is slight as compared with modern chemical fertilizers. The organic matter applied to the surface of a lawn is probably not very beneficial although it is invaluable for incorporating into the soil in preparation for seeding or sodding a new lawn. Certainly the use as a top dressing of manure will not endear you to your neighbors.

ANNOUNCEMENTS

The PLANT SALE Committee wishes to STRESS that it is important for those volunteering for **sales personnel** and other assignments to **call now** so that we may plan ahead. Please telephone Mrs. John Haney at 388-0602 — we need help from everybody. (Especially needed are sales clerks who are familiar with house plants. Dr. Helen Zeiner and Mr. Ernest Bibee, Conservatory Superintendent, are selecting a fascinating list of plants.) All Committees will have lists of plants and briefing sessions will be held in late March or April. ALSO, NOW, we solicit —we need promises—plant donations from home gardens. For information, call Mrs. Jesse Gibson, 794-0191.

On Tuesday, March 16, the second in a series of basic courses on botany will begin. Mr. Joseph Oppe, Botanist Horticulturist, will teach this course. The course will cover the plant kingdom from the algae to the flowering plants. Classes will be held on March 16, 24 and 30 and April 6 from 9:30 to 11:00 a.m. It is open to all and is especially recommended for Associates wishing to be guides of the Botanic Gardens. Please telephone Botanic Gardens House (297-2428) to register.

Welcome to the following new members of Denver Botanic Gardens: Mr. and Mrs. Charles H. Booth, Mrs. Randolph P. McDonough, Mrs. Robert McKenna, Mrs. F. M. Scott, Mildred Sienfried, Mrs. C. A. Perrigo, Joseph S. Davis, Mr. and Mrs. Martin Chadwick, Mr. and Mrs. Bruggenthies, Harveyette Harvester Garden Club, Gertrude E. Miller, Mrs. Hugo Wangelin, George A. Hamilton, W. H. Wilson, Mr. and Mrs. Clarence Stevens, Mary Louise Riede, Mrs. James A. Mills, Johnstown Home and Garden Club, Carolyn A. Fuller, Morning Garden Club of Greeley, Edward P. Gueguen, Matt Mateyka, Winston S. Howard.

Our apologies to these members whose names were omitted from the annual roster: Mrs. Frank King, Mrs. Paul W. Kiesling, Mr. and Mrs. Rex Jones, Mrs. Walter K. Koch, Mrs. Robert Calfee, Boulder, Richard Armstrong, Boulder and to Dr. E. H. Brunquist for misspelling his name.

AN EXCITING LECTURE IS COMING UP

Co-sponsored by Denver Botanic Gardens and the Department of Botany, University of Denver, Dr. William A. Weber, plant taxonomist and curator of the Herbarium of the University of Colorado Museum, will present "FOLLOWING CHARLES DARWIN TO THE ENCHANTED ISLANDS." The lecture, illustrated with slides, is his personal account of the Galapagos International Scientific Project. **March 25th** is the date; **8:00 p.m.** the time; and, the **Boettcher Center Auditorium** (2050 E. Iliff Ave. at Vine) the place. Admission will be 75¢ to adults, 25¢ to students and free to children under 12.

Tickets are available now at Botanic Gardens House or by mail with a return envelope and check to Associates of Denver Botanic Gardens, 909 York St., Denver, Colorado 80206.

"The Galapagos International Scientific Project was undertaken January 7 to March 18, 1964 by the University of California. Cooperating agencies were the California Academy of Sciences, National Science Foundation, Charles Darwin Foundation, Unesco and others. Travel to and from the islands was made possible by an arrangement with the California Maritime Academy, whose spring cruise took place at the same time.

The purpose of the project was to dramatize the continuing need for study of the islands from the standpoint of their geologic origin and the flora and fauna which has made the islands so justly famous. To this end the Darwin Research Foundation has established a permanent field station for visiting investigators and has undertaken a treaty with the government of Ecuador, which owns the archipelago, for protection of certain areas where the rare giant tortoises, flightless cormorants, land and marine iguanas, Galapagos hawk and Galapagos penguin still survive in small numbers.

Some 58 scientists, assistants, divers and clerical assistants spent 6 weeks at the Darwin Research Station studying a variety of problems and were aided by the Ecuadorean and United States Navy and local fisherfolk in excursions to the 18 or more islands in the group. Among the scientific personnel were specialists studying vulcanism, paleomagnetism, marine invertebrates, fossils, birds, climatic phenomena, ocean currents, behavior of sea lions, sea anemone poisons, soils, insect-plant relationships, corals, continental drift, solar distillation of seawater for local use and bird behavior."

Dr. Weber made a field study of lichens and bryophytes on the islands; these groups of plants had never been studied here before, although the area is a lichenologist's paradise, receiving most of its scant moisture as fog, which can be picked up by these plants from the air. Among other things, it was discovered that tortoises support lichens on their shells.

CALENDAR OF EVENTS

THE MONTH OF MARCH

- | | |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1) 7:30 p.m. Swingle Study Group | 16) 9:30 a.m.—11:00 a.m. Basic Botany Course |
| 2) 9:30 a.m.—11:00 a.m. Basic Botany Course | 1:00 p.m. Rocky Mountain African Violet Council |
| 11:00 a.m. Gift Shop Committee | 8:00 p.m. Cherry Hills Men's Garden Club |
| 4) 10:00 a.m.—3:00 p.m. Handcraft workshop for gifts | 17) 9:30 a.m. Fun with Flowers |
| 7:45 p.m. Orchid Society | 18) 10:00 a.m. Around the Seasons |
| 8) 10:00 a.m. Judge's Council | 7:30 p.m. Dahlia Society |
| 1:00 p.m. DBG Guild Board Meeting | 19) Denver Federation of Federated Women's Clubs — Tea |
| 9) 9:30 a.m.—11:00 a.m. Basic Botany Course | 7:30 p.m. Botany Club |
| 10:00 a.m. Herbarium Study Group | 23) 9:30 a.m.—3:30 p.m. County Agents Custodial Workshop |
| 6:00 p.m. Kibitzers | 24) 9:30 a.m.—11:00 a.m. Basic Botany Course |
| 10) 9:15 a.m. DBG Guild | 25) 1:00 p.m. Civic Garden Club |
| 12 Noon Colorado Garden Show Board | 8:00 p.m. Lecture by Dr. William A. Weber, |
| 2:00 p.m. Editorial Committee | Boettcher Center Auditorium,
2050 East Iliff Avenue |
| 11) 7:30 p.m. Rose Society | 26) 10:00 a.m. Ikebana International |
| 12) Colorado Federation of Garden Clubs State Board Meeting | 28) 2:00 p.m. Colorado Cactophiles |
| 14) Denver Women's Business Club
3:00—5:00 p.m. | 30) Colorado Garden and Home Show — through April
4, Denver Coliseum and National Western Bldg. |
| 15) 9:30 a.m. Plant Sale Committee | |
| 4:00 p.m. DBG Board of Trustees | |

MARCH NEWSLETTER
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Green Thumb Newsletter

LAWRENCE A. LONG, President

DR. A. C. HILDRETH, Director

MARILYN HOLMES, Volunteer Editor

DENVER BOTANIC GARDENS, INC.

• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

APRIL, 1965

GARDENING MEMORANDA

Deciduous and evergreen trees and shrubs can be pruned. The pruning of spring flowering shrubs, such as lilac and forsythia, should be postponed until after the blooming period to insure a maximum of flowers.

Inspect your deciduous shrubs and trees, particularly the cotoneasters, lilacs, elms and maples, for scale infestations. Scale insects can be controlled by spraying with dormant oil.

Begin planting bare-root roses the first of April if the soil is workable. Potted roses should be used if planting is delayed until after the middle of May. Select a planting site with good drainage and away from the competing roots of other trees and shrubs. Dig a hole large enough to contain the roots without cramping. Cover the roots with a mixture of 30% peat, 20% well-rotted cow manure and 50% soil. After backfilling, thoroughly soak the soil with water. After planting and watering, mound the soil 8 to 10 inches high around the canes. This mound should be kept moist and can be removed during the middle of May or when the danger of killing frosts is past.

ANNOUNCEMENTS

On Friday, April 16 at 8:00 p.m. and Saturday, April 17 at 2:00 p.m., at Botanic Gardens House, Mr. H. L. Gibson, Sales-Service Division, Eastman Kodak Co., Rochester, N. Y., will give an illustrated lecture on "The Techniques of Plant Photography". Mr. Gibson is in charge of nature photography for the Eastman Kodak Co. He is a member of many photographic societies including: Royal Photographic Society; Fellow, Photographic Society of America; Fellow, Past President, Biological Photographic Association. Mr. Gibson has received many international honors in nature and biological photography. Among

these is the Lewis Schmidt Award for contributions to the science of biological photography. This is such a high award that only five or six have ever been granted.

There will be approximately 40 tickets available to each of the two lectures. Admission is free; tickets must be picked up in advance at Botanic Gardens House; capacity limited.

The Annual Dahlia Tuber Auction for the benefit of the Denver Dahlia Society will be held April 22, 7:30 p.m. at Botanic Gardens House. The public is invited.

The Denver Gladiola Society will hold a gladiola corm auction at Botanic Gardens House at 7:30 p.m. on Tuesday, April 13. The public is invited.

In Colorado, this year, Arbor Day will be celebrated on Friday, April 16.

The Fourth Annual African Violet Show: "Hi Country Violets" will be held Saturday and Sunday, April 24 and 25, at the Heart O' Denver Motel Mural Room, 1100 E. Colfax Avenue, Denver. This show is presented by the Rocky Mountain African Violet Council. Show times are: Saturday, 1:00 p.m. to 8:00 p.m. and Sunday, 1:00 p.m. to 6:00 p.m.

We are very happy to welcome the following people to membership in Denver Botanic Gardens: Mrs. Ivan Kohnfelder, Mr. & Mrs. Ray L. Machamer, Mrs. O. E. Haffner, Mr. & Mrs. Richard E. Gray, Mrs. Robert A. Wolff, Mrs. Ben R. Caldwell, Eva F. Bowers, Mr. George D. Heath, Mrs. J. B. Nunn, Mrs. Shirley C. Stout.

CALENDAR OF EVENTS
The Month of April

- 1) 7:45 p.m. Denver Orchid Society
2) 1:00 p.m. Civic Garden Club Tea
6) 9:30 a.m. Basic Botany Course
11:00 a.m. Gift Shop Committee
8) 7:30 p.m. Denver Rose Society
9) 8:00 p.m. Illustrated lecture by Dr. William Popejoy; Photographying House Plants. Sponsored by Rocky Mountain African Violet Council.
12) 10:00 a.m. Judges Council
13) 9:30 a.m. Basic Botany Course
10:00 a.m. Herbarium Study Group
7:30 p.m. Gladiola Society Corm Auction
14) 9:15 a.m. Denver Botanic Gardens Guild
12:00 noon Colorado Garden Show Board
2:00 p.m. Reviewers Club Tea. Dr. Hildreth speaker.
2:00 p.m. Editorial Committee
15) 10:00 a.m. Around the Seasons Club
16) Arbor Day
8:00 p.m. Mr. H. L. Gibson illustrated lecture on "The Techniques of Plant Photography".
17) 2:00 p.m. Mr. H. L. Gibson illustrated lecture on "The Techniques of Plant Photography".
20) 9:30 a.m. Basic Botany Course
21) 9:30 a.m. Fun with Flowers Workshop
22) 10:00 a.m. Plant Sale Information Briefing Committee - all Plant Sale Volunteers.
7:30 p.m. Dahlia tuber auction
23) 10:00 a.m. Ikebana International
7:30 p.m. Men's Garden Club of Denver
25) 2:00 p.m. Colorado Cactophiles
26) 8:00 p.m. Alta Vista Garden Club. Mr. Herbert Gundell speaker.
28) 9:30 a.m. Garden Club of Denver Workshop

APRIL NEWSLETTER
DENVER BOTANIC GARDENS, INC.
909 York Street, Denver, Colorado 80206

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Denver, Colorado

Green Thumb Newsletter

LAWRENCE A. LONG, President

DR. A. C. HILDRETH, Director

DENVER BOTANIC GARDENS, INC. • 909 YORK • Telephone: 297-2428 or 297-2632 • MAY, 1965

GARDENING MEMORANDA

Clover mites are often a problem in people's houses at this time of year. This pest can be controlled by spraying the ground and the grass around the house for a distance of about 6 feet out from the wall. Use a mixture of 2 tablespoons of kelthane and 2 tablespoons of malathion to a gallon of water. Also use a much stronger solution of these ingredients and spray the house foundation and around the basement windows and windowsills. Spraying should be done when the day temperature is about 50 degrees. This process may have to be repeated.

The **planting date** for petunias, snapdragons and other of the "hardier" bedding plants will depend a great deal on the treatment they receive prior to planting. If they are moved directly from a warm greenhouse or house to the garden then they should not be planted until late in the season, perhaps as late as the end of May. On the other hand, if they were hardened-off by gradually exposing them to outside conditions, then they may be planted as early as May 10 to 15, depending on the season. If the gardener wishes to get a "head start", without taking steps to harden-off the plants, then he must be willing to take the chance of having them killed by a late frost.

Even though the past winter was a relatively "wet" one, April has been dry and lawns, perennial flowers, strawberries, shrubbery (especially evergreens) and trees will probably require **supplemental water**. Rather than guess at the moisture condition of the soil underlying plants, check it by inserting a strong metal object, such as a screwdriver, into the soil. After a little experience using this technique, you should be able to determine the depth to which moisture has penetrated the soil and also the amount of irrigation required.

Do not remove the foliage from tulips and other "bulbs" until after the leaves die down to the ground. Leaves are the "factories" in which food is produced for the plants. Food manufactured during the summer is stored in the "bulbs" during the winter and is used to produce new flowers and leaves in the spring. Do cut back the flower stalks as soon as the blooms fade.

Early tulips have been making a grand display in the test plantings of Denver Botanic Gardens. The main show will come later, perhaps the first week in May.

ANNOUNCEMENTS

Watch for the announcement of the advance sale of tickets for the 1965-66 Denver Botanic Gardens lecture series. The Education Committee, under the direction of Dr. Wayne G. Christian, is currently preparing a schedule of interesting, educational and informative lectures by qualified speakers. These lectures are intended to appeal to laymen as well as professional people.

Annual Plant Sale: Friday, May 7th, 12:00 noon to 6:00 p.m. Saturday, May 8th, 10:00 a.m. to 6:00 p.m. Sunday, May 9th, 10:00 a.m. to 3:00 p.m.

Convenience and customer service are being stressed at this year's Annual Plant Sale. Not only will a choice selection of plants go on sale a day earlier this year, but several innovations have been established to make shopping and browsing easier and more enjoyable.

A checking station under the evergreen trees in the southeast corner of the York Street Unit will be available for depositing purchases so that shopping may be continued without encumbrance.

More efficiently operated, centralized cashier stations, spotted on the perimeter of the Garden, will enable the shopper to pay for all purchases at one time. Boy Scouts will be present to assist in carrying plants and an automobile pick-up service will be set up on the 9th Avenue side of Botanic Gardens House. This facility will provide for direct loading into automobiles.

This will be fun for the whole family. The children may purchase gift plants in the especially designed Children's Booth. Luncheon will be served every day of the sale under colorful umbrella tables on the southwest terrace.

IKEBANA INTERNATIONAL ANNUAL EXHIBIT OF FLOWER ARRANGEMENTS. This exhibit of Japanese style arrangements is a highlight of the spring season and will be held at the Phipps Tennis House, 3300 Belcaro Drive (off of Exposition) on Wednesday, May 19th, 10:00 a.m. to 10:00 p.m. and Thursday, May 20th, 10:00 a.m. to 5:00 p.m. The public is invited. Admission: \$1.00.

This year the Ikebana workshops at Botanic Gardens House have been taught by Mrs. Taki-no Takamatsu of Denver, who has continued the study of the Moribana, a Japanese style with western influence originated by Unshin Chara, founder of the school of that name in Japan, and the classical Nageire, by more advanced styles. One of the unique aspects of the Ikebana is the emphasis on space and line so that even intricate arrangements give an impression of simplicity evocative of repose. The first exhibit held last May drew much interest and the forth-coming show promises to rival it, with steps forward. Co-chairmen for the event are Mrs. Alonzo Lilly and Mrs. Frank McLister. Mrs. Baxter Lanius is president of the Denver Chapter.

We are very happy to welcome the following people to membership in Denver Botanic Gardens: Mrs. John D. Benjamin, Darrel D. Murphy, Robert D. McPhee, Mrs. David C. Wilhelm, Katherine Cooley Gaskill, Mr. and Mrs. Lennart Wallden, Mrs. Q. W. Freshman, Harry L. Humphries, Mrs. Barry Bekins, Mr. and Mrs. Allan Perlmutter, Ken G. Wasson, Helen M. Body, Sybil D. Bates, David M. Anderson, Olive Russell, G. T. Swanby, Rosilee Molletti, Lanny R. Booth, Dora E. Kaufman, E. W. Bauman, Mrs. N. E. Kessler, Mrs. Sallie J. Ware, Mrs. Erich Kohlberg, Patricia M. Mitchell, Mrs. Thomas W. Bell.

CALENDAR OF EVENTS

THE MONTH OF MAY

- | | |
|---------------------------------------------|--------------------------------------------------------------------|
| 4) All Day Flower Show School | 17) 4:00 p.m. Denver Botanic Gardens Board |
| 5) All Day Flower Show School | 18) 1:00 p.m. Rocky Mountain African Violet Council |
| 6) One-half Day Flower Show School | 19) 9:30 a.m. Fun with Flowers |
| 7:45 p.m. Orchid Society | 20) 10:00 a.m. Around the Seasons |
| 7) Noon to 6:00 p.m. Annual Plant Sale | 7:30 p.m. Dahlia Society |
| 8) 10:00 a.m.—6:00 p.m. Annual Plant Sale | 21) 7:30 p.m. Botany Club |
| 9) 10:00 a.m.—3:00 p.m. Annual Plant Sale | 23) 2:00 p.m. Colorado Cactophiles |
| 10) 10:00 a.m. Judges Council | 26) 9:30 a.m. Garden Club of Denver Workshop |
| 11) 10:00 a.m. Herbarium Study Group | 12:00 noon Morning Glories Garden Club of Lakewood Picnic and tour |
| 12) 9:15 a.m. Denver Botanic Gardens Guild | 12:00 noon Cherry Hills Garden Club Picnic and tour |
| 2:00 p.m. Editorial Committee | |
| 13) 7:30 p.m. Rose Society | 28) 10:00 a.m. Ikebana International |
| 14) 10:00 a.m. Reclamation Auxiliary | |
| 15) 10:00 a.m.—4:00 p.m. Ceramic Study Club | |

MAY NEWSLETTER
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909 York Street, Denver, Colorado 80206

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LAWRENCE A. LONG, President

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DENVER BOTANIC GARDENS, INC.

• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

JUNE, 1965

GARDENING MEMORANDA

Don't neglect your tulips, daffodils and hyacinths now that they are through blooming for the year. Keep the plants in good condition by cultivating, fertilizing and watering until the tops die naturally. Don't cut off the foliage. If you didn't cut off the flower stalks when the flowers faded, do it now. Seed production weakens the buds.

Prune spring-flowering shrubs after they have finished blooming.

Remove the old flower clusters from lilac bushes as soon as the flowers fade . . . This will improve the appearance of the bushes and increase their vigor.

As the weather warms up watch for aphids on roses, snowball bushes, delphinium, chrysanthemums and other shrubs . . . and perennials. Spider mites also increase rapidly as the temperature rises. They attack a wide variety of perennials, trees and shrubs including evergreens.

Watch Oriental poppies for thrips. They can cause serious damage before you know they are at work.

Malathion will control all three of these pests.

Flea beetles may be eating the leaves of young radishes, turnips, eggplant and other vegetables. Sevin will control this pest without making the vegetables unsafe for eating.

ANNOUNCEMENTS

TERRACE AND GARDEN TOUR: On Wednesday, June 23, under sunny skies, we hope, the Annual Garden and Terrace Tour will once again provide an opportunity to see some of Denver's most interesting gardens.

On exhibit this year are eight gardens. Mrs. Alfred C. Hicks, Mr. and Mrs. David Touff, Mr. and Mrs. Donald Robertson, Dr. and Mrs. Howard Suenaga, Mr. and Mrs. Donald Campbell, Mr. and Mrs. Erle Kistler, Dr. and Mrs. Max Kaplan and a complex of four gardens at 3130 South Monroe.

Tickets are \$3.00. Call now for your reservations. Mrs. Charles Arnold — 777-9404 or Mrs. Richard Kirk — 777-5868. Tickets are available at Botanic Gardens House and they may be purchased at the gardens on the day of the tour. Buses will depart from Botanic Gardens House at 10:00 a.m. and 2:00 p.m. Tickets \$1.00. Refreshments will be served at Mrs. Kistler's and experts will be available at each garden to lead tours on the hour.

ROSE SHOW — JUNE 20 — presented by the Denver Rose Society in the lobby of First National Bank of Denver — 1:30 to 5:30 p.m.

PRIMROSE SOCIETY — there is an effort being made by admirers of this plant to establish a Primrose Society

in Denver. Persons interested in joining may call Mrs. S. L. Heacock, 934-1506 for information.

Tours of the York Street Unit of Denver Botanic Gardens may be arranged by calling Mrs. Roberta Sawin, 424-0903. Gardens should be at their best from about June 15th. Tours may be scheduled from 10:00 a.m. to 4:00 p.m., Monday through Friday.

The 1965 Annual Plant Sale exceeded even the previously most successful sale in 1964. It was the best organized, most efficiently run sale held thus far.

Denver Botanic Gardens wishes to express sincere gratitude to all who worked so hard to make the Sale a tremendous success.

Watch for the announcement of the advance sale of tickets for the 1965-66 Denver Botanic Gardens lecture series. The Education Committee, under the direction of Dr. Wayne G. Christian, is currently preparing a schedule of interesting, educational and informative lectures by qualified speakers. These lectures are intended to appeal to laymen as well as professional people.

Welcome to Denver Botanic Gardens New Members:

Mr. and Mrs. Clarence G. Wilkins, Donald W. Payne, Mr. and Mrs. Robert I. St. Clair, Mrs. Sam B. Hardin, Mrs. Philip M. Emery, Mrs. R. S. Barr, Mrs. Beverly R. Willbanks, Mrs. Pamela J. Anderson, Loay Winifred Boggess, Mr. and Mrs. Barney Brewer, Mrs. Tyler T. Dyer, Marguerite Eckman, Mrs. E. D. Egan, Isabella Gonzales, Mr. Jack L. Hansen, Louise G. Harmes, Mrs. F. L. Holm, Mr. Lawrence P. Hough, Mrs. Frank E. Kates, Jr., Mrs. Richard J. McCann, Mrs. Alan McDonough, Dr. R. N. McDowell, Carolyn K. McIntosh, Isla Montgomery, Mrs. Robert B. Morris, Mrs. Amy Muramoto, Mrs. John Nockels, Harold L. Parkinson, Ethel D. Peyton, Mrs. W. H. Wolfe. Many thanks to CLYDE LEARNED for convincing so many people they should become members of Denver Botanic Gardens.

1965 DENVER BOTANIC GARDENS COMMITTEES

Executive: Lawrence A. Long, Chairman, Mrs. George H. Garrey, Mrs. James J. Waring, Mrs. Ed. H. Honnen, Mrs. Frank McLister, John C. Mitchell and Aksel Nielsen.

Children's Garden: Dr. John R. Durrance, Chairman, Mrs. Giles Filley, Mrs. James C. Layden, Mrs. James J. Waring, Mrs. Anita McDonald and Dr. A. C. Hildreth.

Children's Garden Supervisors: Mrs. Anita McDonald, Chairman, Mrs. Joseph Craighead, Mrs. Edward Lupberger, Mrs. Howard W. Reynolds, Mrs. Robert Ebert, Mrs. Henry Goldstein, Mrs. T. D. Thompson, Mrs. Eddie Kawakami, Mrs. Joseph Habas and Mrs. John Coyte.

Editorial: Mrs. William H. Crisp, Chairman, Mrs. Alexander L. Barbour, Mrs. Hardin Holmes, Mrs. Norton Novitt, Mrs. J. V. Petersen, Mrs. James P. Steele, Jr., Mrs.

Edmund W. Wallace, Mrs. Lucian Long, Mrs. Charles L. Saunders, Dr. Helen Marsh Zeiner, Dr. A. C. Hildreth, Clyde E. Learned, Dr. Moras L. Shubert, Joseph W. Oppe, Editor.

Education: Dr. Wayne G. Christian, Chairman, Mrs. C. A. Perrigo, Dr. Helen Zeiner, Mrs. Robert Kosanke, Mrs. Clarke C. Bergeon, Mary Jo Giroux, Patrick J. Galavan, Father William T. Miller, Dr. Hugh Pote.

Entertainment: Mrs. Brown W. Cannon, Chairman, Mrs. Cass Herrington, Mrs. Charles C. Gates, Jr., Kenneth Wilmore.

Garden Tour: Mrs. Richard Kirk and Mrs. Charles Saunders, Co-Chairmen, Mrs. Charles Arnold, Mrs. Mackintosh Brown, Mrs. Schuyler Gray, Mrs. Robert L. Davis, Mrs. Thomas Payne, Mrs. R. L. Davis III, Mrs. Peter Neidecker, Mrs. Hardin Holmes, Mrs. Paul Hicks, Mrs. Robert Guthrie.

Gifts and Memorials: Mrs. Ed. H. Honnen, Chairman, Mrs. William Crisp, Mrs. James J. Waring, Mrs. J. Kernan Weckbaugh.

Herbarium: Dr. Helen M. Zeiner, Chairman, Mrs. Harracena Newman, Mrs. Randall Hughes, Mrs. Mary

Fuller, Mrs. J. P. Steele, Mrs. Walter Ash and Dr. E. H. Brunquist.

House Committee: Mrs. Frank McLister, Chairman, Mrs. George H. Garrey, Mrs. James J. Waring, Mrs. Jess Gibson, Mrs. Ed. Honnen and Mrs. Carl W. Tempel.

Library: Miss Lucy Crissey, Chairman, Mrs. Arthur Hellriegel, Mrs. Earl Wilson, Dr. A. C. Hildreth, Consultant. Other consultants: Clyde E. Learned, Roses; Edgar Sherman, Cacti and Jack Riley, Iris.

Membership: Mrs. William Stanley, Chairman, Mrs. Donald J. O'Connor, Mrs. Donald Robotham.

Nominating: John C. Mitchell, Chairman, Mrs. Brown Cannon, Mrs. George H. Garrey.

Planning: Dr. John R. Durrance, Chairman, Mrs. James J. Waring, John C. Mitchell, Dr. A. C. Hildreth, Aksel Nielsen, Ed Wallace (ex-officio).

Plant Sale: Mrs. Graham Morrison, Mrs. Theodore Washburne, Co-chairmen.

Finance: John C. Mitchell, Chairman. Names of other members have not yet been submitted.

CALENDAR OF EVENTS

MONTH OF JUNE

- | | |
|---------------------------------------------------------------|--------------------------------------------------------------------------|
| 3) 10:00 a.m. Gift Shop Work Shop
7:45 p.m. Orchid Society | 16) 9:30 a.m. Fun with Flowers |
| 4) 11:00 a.m. Civic Garden Club Coffee-Election | 17) 7:30 p.m. Dahlia Society |
| 8) 10:00 a.m. Herbarium Study Group | 18) 7:30 p.m. Botany Club |
| 9) 12:00 noon Colorado Garden Show Board | 21) 9:30 a.m. Colorado Federation of Garden Clubs
State Board Meeting |
| 10) 7:30 p.m. Denver Rose Society | 25) 10:00 a.m. Ikebana International |
| 11) 9:30 a.m. Southern Hills Garden Club | 27) 2:00 p.m. Colorado Cactophiles |
| 14) 10:00 a.m. Judges Council | 30) 9:30 a.m. Garden Club of Denver Workshop |

JUNE NEWSLETTER

DENVER BOTANIC GARDENS, INC.

909 York Street, Denver, Colorado 80206

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LAWRENCE A. LONG, President

DR. A. C. HILDRETH, Director

MARILYN HOLMES, Volunteer Editor

DENVER BOTANIC GARDENS, INC.

• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

JULY 1965

GARDENING MEMORANDA

The wet weather that prevailed during much of June provided ideal conditions for increased insect infestations on garden vegetable plants. Even though the gardener was diligent in his efforts at spraying, this was probably to little avail as the daily showers tended to wash the insecticides away before they had an opportunity to do any good.

The vegetable gardener should inspect his plants carefully for signs of insects. Examine the undersides of leaves and the tender growing tips of plants, as these areas are usually the first to be damaged by insects.

Malathion and Sevin are two insecticides that are very useful for controlling insects on vegetable plants. Both of these insecticides are low in toxicity to humans and other warm-blooded animals. In addition, their residual effect is rather short-lived which means that they can be applied closer to harvest than many of the other insecticides.

Malathion is particularly effective against aphids while Sevin provides good control of chewing insects. It is best to inspect plants to see what type of insects are present and then choose which of the two insecticides to use. If certain plants are effected with both aphids and chewing insects, it is possible to mix Malathion and Sevin together and apply both at the same time.

Tomato, cabbage, broccoli, Brussels sprouts, cauliflower, kohlrabi and green pepper should be sprayed with Malathion when aphid infestations occur. Cabbage worms, which are easily controlled with Sevin will be found feeding on cabbage, broccoli, Brussels sprouts, cauliflower and kohlrabi. Sevin is an effective control for fleabeetles which are often found eating the leaves of radishes and turnips.

Mexican bean beetles, which should be appearing in July, can be controlled with Sevin. The tomato hornworm can be controlled with Sevin or can be picked by hand and destroyed.

Since there are many different formulations of Malathion and Sevin on the market, it is impossible to give exact directions for the use of each and every one. However, each insecticide container will have explicit directions for use and these should be followed carefully.

June rains brought us abundant moisture. They also brought down from the air an appreciable amount of plant nutrients. Lawns responded gratefully to such luxury conditions. But these nutrients will not last long and the first summer application of fertilizer will be needed if it has not already been applied.

Assuming that your spring application was a complete fertilizer (one containing nitrogen, phosphorus and potash) it is probable that the grass now will need only a nitrogen fertilizer, such as ammonium sulphate. Use about 5 pounds to a thousand square feet of lawn. Apply only when the soil surface and grass are dry and water immediately to wash the fertilizer off the grass blades and into the soil.

Pale looking lawns will usually respond to an application of some iron compound such as iron chelate or iron sulphate. These may be mixed with the fertilizer. Use from 1 to 3 lbs. of iron sulphate to a thousand square feet. Keep iron compound away from walks and curbs of concrete or light colored brick and stone. Ugly brown stains!

ANNOUNCEMENTS

Educational Lecture Series: Tickets are now available for the Denver Botanic Garden 1965-66 Lecture Series which is sponsored by the Education Committee, Dr. Wayne G. Christian, Chairman. There are 6 interesting lectures scheduled, listed here. Season tickets are \$5.00 each and may be obtained at Botanic Gardens House. All lectures are scheduled to start at 8:00 p.m.

Wednesday, Sept. 15, 1965 - Boettcher Hall, D.U. campus: Dr. Richard Beidleman, Biology Department, Colorado College.

"Plains to Peaktops". A Colorado panorama.

Friday, October 22, 1965 - Treat Hall, Colorado Woman's College: Mr. Ladislaus Cutak, Missouri Botanical Garden. "Cacti and Succulents". Their care and culture.

Tuesday, Nov. 30, 1965 - Phipps Auditorium: Dr. Estella B. Leopold, Paleontology and Stratigraphy Branch of the United States Geological Survey. "Palynology".

Friday, Feb. 25, 1966 - Treat Hall, Colorado Woman's College: Dr. Ralph Baker, Colorado State University. Plant Pathology. Exploring extraterrestrial plant pathology and some projected biosatellite explorations.

Friday, March 25, 1966 - Treat Hall, Colorado Woman's College: Mr. Ernest Bibee, Superintendant, Boettcher Conservatory.

Review of the conservatory and some of its features and possibilities as an educational facility.

Friday, April 29, 1966 - Treat Hall, Colorado Woman's College: Mrs. Raymond Watts, Naturalist Emeritus, the Morton Arboretum. Subject to be announced later.

All of these lectures will be illustrated.

Gladiolus Society Annual Show - Sunday August 8, 1965. Denver-U.S. National Bank 2:00 - 6:00 p.m. Admission Free.

Northern Colorado Gladiolus Show - Greeley, Colorado. Sunday, August 1, 1965 2:00 - 6:00 p.m.

CALENDAR OF EVENTS

Month of July

- | | | |
|-----|------------|------------------------------|
| 7) | 11:00 a.m. | Northglenn Garden Club |
| 12) | 10:00 a.m. | Judges Council |
| 13) | 10:00 a.m. | Herbarium Study Group |
| 14) | 9:15 a.m. | Denver Botanic Gardens Guild |
| | 2:00 p.m. | Editorial Committee |
| 15) | 7:30 p.m. | Dahlia Society |

- | | | |
|-----|------------|------------------------------|
| 16) | 7:30 p.m. | Botany Club |
| 19) | 4:00 p.m. | Denver Botanic Gardens Board |
| 23) | 10:00 a.m. | Ikebana International |
| | 7:30 p.m. | Men's Garden Club of Denver |
| 25) | 2:00 p.m. | Colorado Cactophiles |

Apologies to Mrs. Alexander L. Barbour whose name was unfortunately omitted from the list of members of the Library Committee.

We welcome the following new members to Denver Botanic Gardens: Mrs. G. Alvin

Williams, Aurora Public Library, Mrs. Emil W. Peters, Annie E. Kapell, Mr. & Mrs. E.K Teter, Mrs. T. H. Wrenn, Jr., Mrs. Philip C. Wilcox, Mrs. R. H. Riensche, Mrs. Joe D. Deason, Mr. & Mrs. Michael Carlile.

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Denver, Colorado

Green Thumb Newsletter

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52 Iris

AUGUST 1965

GARDENING MEMORANDA

The Iris is one of the few perennials planted in summer. July is the favorite month but June and August are also good for planting.

To divide irises dig the whole clump and shake off the soil. Break or cut the rhizomes so that each piece has at least one good "fan" of leaves attached to a good piece of rhizome. The young, outside fans with plump rhizomes are best. The old, weak middle portion of the clump should be thrown away. Cover the rhizomes lightly with soil.

If your annual planting seems to be growing poorly it may need pepping up with a little fertilizer. Do not overdo fertilizing, particularly with a material high in nitrogen. This will cause the plants to overgrow resulting in tall plants that may topple over and may reduce flowering. A fertilizer with about twice as much nitrogen and phosphorus and little or no potash will usually be satisfactory. Sometimes a foliage fertilizing with one of the soluble chemical fertilizers sprayed on the foliage will be all that is necessary.

During the past few weeks, there have been scattered reports of hail damage to plants. This damage has been, in some cases, quite severe on bedding and vegetable garden plants. Don't become panicky and prune back these damaged plants too severely. They have remarkable ability to recover from such damage and it is quite possible that they will mature and bear flowers and fruits if left alone.

The wet weather that we have had lately has provided excellent growing conditions for weeds. Such inclement weather also keeps the gardener from performing the ordinary tasks of cultivating and weeding. Even though the conditions are difficult, the gardener should make every effort to see that weeds are not allowed to flower and set seed. The

formation of seed this year, will insure a bigger and better crop of weeds that will have to be controlled next year.

ANNOUNCEMENTS

"Welcome to Colorful Colorado" is a small book of "Breezy, descriptive Colorado verse" by Len Shoemaker and is dedicated to "the stranger within our gates."

"For eighty-four years the author has lived and worked in Colorado. Thirty of those years were devoted to government service, twenty-five as a forest ranger on the national forest within our colorful state.

Often, as he went about his duties in those beautiful mountainous areas his pride in his homeland spontaneously cropped out in verse, as shown herein. The verses mentally portray some of the people, places and things that he has known and loved." He should be remembered for his earlier work, *Saga of a Forest Ranger*.

This book of poems will make an excellent souvenir of Colorado - all copies are autographed. Available at Botanic Gardens House. Price: \$1.25.

1965-1966 Lecture Series: Don't forget to buy your season ticket for this interesting and informative series of lectures. Season tickets are only \$5.00 and six fine programs are on the agenda. Tickets available at Botanic Gardens House.

Recent additions in scientific botany to the Helen Fowler Library, Denver Botanic Gardens:

BOOKS

1. Vascular Plants of the Pacific Northwest, by C. Leo Hitchcock and others. 1955-to date.

Part 2: Salicaceae to Saxifragaceae

Part 3: Saxifragaceae to Ericaceae

Part 4: Ericaceae through Campanulaceae

Part 5: Compositae

Part one will be added when it becomes available.

2. Chromosome Atlas of Flowering Plants, by C. D. Darlington and A. P. Wylie - 1955.

3. Flora Europaea, edited by T. G. Tutin and others - 1961. Vol. 1 - Lycopodiaceae to Platanaceae.

4. Poisonous Plants of the United States and Canada, by John M. Kingsbury - 1964

5. Flora of Missouri, by Julian A. Steyermark - 1962.

6. Families of Flowering Plants of Southern Africa, by Herbert P. Riley - 1963

7. Seed Identification Manual, by Alexander C. Martin - 1961.

8. Woody Flora of Taiwan, by Li Hui-Lin, - 1963.

9. Forest Entomology, by T. O. Thatcher - 1961.

PERIODICALS

American Journal of Botany.

Economic Botany.

Botanical Gazette

CALENDAR OF EVENTS

Month of August

3)	12:00 noon	Colorado Nurserymen's Association Luncheon	19)	7:30 p.m.	Dahlia Society
5)	10:00 a.m.	Gift Shop Work Shop	20)	1:30 p.m.	Denver Fed. of Federated Women's Clubs Tea
10)	1:00 p.m.	Garden Club of Denver Luncheon	25)	7:30 p.m.	Botany Club
11)	9:15 a.m.	Denver Botanic Gardens Guild Meeting		9:30 a.m.	Garden Club of Denver Work Shop
	2:00 p.m.	Editorial Committee		2:00 p.m.	Denver Metropolitan Women's Club Tea
			27)	10:00 a.m.	Ikebana International Men's Garden Club of Denver
				7:30 p.m.	

We welcome the following new members to Denver Botanic Gardens: Mrs. Robert M. Christiansen, Mr. & Mrs. Robert M. Dixon, Mr. Edgar T. Knapp, Mrs. Baxter Lanius, Mrs. John

N. Mayne, Phillip T. Miyazawa, Mrs. John Mowat, Mr. Kenneth Neal, Mr. Bob Rosenheim, Susan Scott.

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SEPTEMBER 1965

GARDENING MEMORANDA

September is planting time for Oriental poppies and peonies. Do not cover the crown-buds of peonies too deeply. From 2 to 3 inches of soil over the bud is enough. Too deep planting is the most frequent cause of failure to bloom in peonies.

September is a good time for seeding lawns. There will be fewer weeds to contend with than in spring. Because the days are shorter and the temperatures likely to be cooler, fall seeded lawns require fewer and less frequent waterings than May or June seedings. Take time to thoroughly prepare the soil and settle the ground before attempting to seed.

Cooler temperatures of September slow down the rate of multiplication of such pests as aphids and red spider mites but they keep on working much longer than one might expect. Watch roses, evergreen trees and shrubs, various perennials and even waterlilies for these pests at this season.

At low fall temperatures our common insecticides such as malathion, nicotine sulphate, DDT and pyrethrum are not so effective as at high summer temperatures. Apply such materials during the hot part of the day or increase the strength of the spray solution.

Picking the faded buds off annuals will encourage them to continue blooming and will reduce the number of volunteer plants in the beds and borders next year.

It is now too late to fertilize trees, shrubs and woody vines, including roses. Applications of fertilizer at this season, particularly those high in nitrogen, will force late growth and make the plants more susceptible to cold injury. At this time of year woody plants need to slow down their growth and harden up for winter.

ANNOUNCEMENTS

There are tickets still available for the 1965-66 Lecture series. Season Tickets are \$5.00. Single lecture tickets are \$1.00 for adults and 50¢ for children 14 years of age and under. The first lecture is scheduled for September 15: Dr. Richard G. Beidleman will talk on "Plains to Peaktops", a Colorado panorama, at Boettcher Hall, University of Denver campus at 8:00 p.m.

New books in the Helen K. Fowler Library: Mr. Von Schleider has given the library a copy of Viola Brainerd Baird's Wild Violets of North America in memory of his cousin, the late Mrs. Dewey Crossman Bailey, Jr.

Welcome to New Members: Mrs. Gerald B. Cullen, Mr. & Mrs. Jack Long, Mrs. A. C. Zimmerman, Mr. & Mrs. Ernest Bibee, Marian MacDonald, Rose Ackerman, Miller Landscape of Colorado Springs, Mr. & Mrs. Lennig Sweet.

The 1964 library inventory revealed that many books are missing from the shelves. It will be appreciated if members who check out books will examine their own book collections to see if some of our missing books may have been overlooked. There will be no penalty for any books returned. Follows a partial list which will be continued in ensuing issues of the Newsletter:

- 041-Melander, Axel: Source Book of Biological Terms.
- 041-Robinson: New Pronouncing Dictionary of Plant Names. 1939.
- 053-Rockwell: 10,000 Garden Questions Answered. 1959.
- 142-Munz: Short History of The Rancho Santa Ana Botanic Gardens.
- 180-Dustan: Landscaping Your Own Home. 1951.
- 180-Johnston: Foundation Planting.
- 180-Sunset: Ideas For Landscaping Your Home.
- 220-Kinsey: New Introduction to Biology. 1938.

- 220-Parker: Flowers, Prints, Seeds. 1941
 250-Weaver, John E.: Root Development. 1926
 251.4-Stevens, Frank L.: Plant Disease Fungii. 1925.
 271-Clark: Did You Know? 1944
 272-Black: Yukon Wild Flowers.
 272-Gabriel Sons & Co.: Album of Our Wild Flowers.
 274-Reid: Important Plants on National Forest Ranges, Eastern Oregon and Eastern Washington.
 275-Stemen: Oklahoma Flora.
 277-Blinn: Rust Resisting Cantaloupe.
 277-Roberts, Harold: Some Common Colorado Wild Flowers.
 277(cc)-LaGrande: Flora de Colorado de Montana. 1900.
 280-Palmer: Trees of South Africa. 1961.
 280-Platt, R.: A Pocket Guide to Trees.
 280-Rogers: Tree Guide.
 280-Trees of Brazil
 280-Smith: Michigan Trees Worth Knowing.
 300-Kelly: Plants for The Plains. (Reprint from Green Thumb. Mch. 1947).
 310-Hills': Evergreens. 1932, 1949. and Plate Book of Hills' Evergreens.
 325-Dwarfed Potted Trees as The Japanese Grow Them.
 331-Hansen: Shrubs and Climbing Vines. 1931.
 333-Lester: Roses of Yesterday.
 333-Norris: Growing Roses.
 333-Waterman: Rose Diseases.
 334-Killand: Hedge Plants.
 340B (cc)- The Botanical Magazine.
 340B-Bry: Florilegium Renovatum. 1641
 341-Mulford: Herbaceous Perennials.
 341.1-Wild: Peonies, Day Lilies, Etc. 1952.
 341.6-Ewan: Synopsis of The North American species of Delphinium. 1945.

CALENDAR OF EVENTS
Month of September

2)	10:00 a.m.	Gift Shop Workshop Committee	16)	7:30 p.m.	Dahlia Society
	7:45 p.m.	Orchid Society	17)	7:30 p.m.	Botany Club
8)	9:15 a.m.	Denver Botanic Gardens Guild	19)	1:00 p.m.	American Business Women's Club Tea
	2:00 p.m.	Editorial Committee			
	4:00 p.m.	Associates Board Meeting	20)	4:00 p.m.	Denver Botanic Gardens Board
9)	8:30 a.m.	Flower Show School	21)	1:00 p.m.	Rocky Mountain African Violet Council
10)	8:30 a.m.	Flower Show School	22)	7:30 p.m.	Annual meeting of Associates Members
11)	8:30 a.m.	Flower Show School	24)	10:00 a.m.	Ikebana International
14)	10:00 a.m.	Herbarium Study Group		7:30 p.m.	Men's Garden Club of Denver
16)	10:00 a.m.	Around the Seasons Club	26)	2:00 p.m.	Colorado Cactophiles

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LAWRENCE A. LONG, President

OCTOBER, 1965

DR. A. C. HILDRETH, Director

DENVER BOTANIC GARDENS INC. • 909 York • Telephone: 297-2428 or 297-2632

GARDENING MEMORANDA

Fall is the best time of the year to **plant new lawns** or to **repair old ones**. The most important step in planting a lawn is the preparation of the soil. Organic matter such as peat, compost, leafmold or aged manure should be uniformly incorporated into the underlying soil at the rate of 4 cubic yards to each 1,000 square feet of lawn area. Remember, a lawn is a relatively permanent planting and the manner in which you prepare the soil will determine, to a great degree, the quality of your lawn. (See the August-September 1964 issue of *The Green Thumb* for more complete directions for lawn preparation.) When seeding bad spots in old lawns, the same basic techniques should be used as when planting new ones. In some cases where the damaged area in an old lawn is small, it may be possible to strip sod from an out-of-the-way spot in the garden, or purchase it from a sod grower and use this to repair the damage. However, whether seeding or sodding, the soil should receive the same attention as described above.

You should be giving some consideration to **cleaning up your garden** in preparation for winter. Remove seed pods and dead stems from perennials and remove annuals after they are killed by the frost. Weeds should not be allowed to go to seed for if they do, this will insure a bumper crop which you will have to cope with next year.

Now, before frost strikes, **take cuttings** or "slips" from garden geraniums, coleus, begonias, iresines, fuchsias, etc., for next year's bedding plants. Root them in sand, perlite, sifted peat, sphagnum or vermiculite. When well rooted, pot in soil.

If you dig up and pot any **bedding plants for winter house plants**, prune them severely to the desired shape. Otherwise they will be ungainly, disappointing specimens.

After frost kills the tops of dahlias, canna and gladioli, cut back to the ground, **dig the so-called "bulbs"** and cure them for a while in an airy, frost-free shelter, then store over winter where they will not freeze.

Gladioli corms should be cleaned, put in paper bags into which a little DDT powder is shaken and stored in a dry place at temperatures from 40 to 50 degrees.

Tuberous roots of **cannas** and **dahlias** should be stored where it is cool but above freezing. The clumps should be packed in large open containers and completely embedded in air-dry sand, peat or vermiculite to prevent excessive drying. Clumps should be divided in spring before planting.

ANNOUNCEMENTS

Our Botanist-Horticulturist, Mr. Joseph Oppe, will be traveling to New York City on September 29th to attend the Nineteenth American Horticultural Congress and the Annual Meeting of the American Association of Botanical Gardens and Arboreta. He will also be visiting the Phipps Conservatory and Hunt Botanical Library in Pittsburgh, Pa. on his trip.

New officers for Associates of the Denver Botanic Gardens were elected at the first general meeting of the newly-formed organization on September 23rd. They include: Mrs. Chard P. Smith, Manager; Mrs. Graham Morrison, Asst. Manager; Mr. Herbert Franson, Treasurer; Mr. Earl Sinnamon, Secretary.

The **following chairmen** were also elected: Mrs. Lucian Long, Gift Shop; Mrs. Carl W. Tempel, DBG House; Miss Lucy Crissey, Library; Dr. Helen Zeiner, Herbarium; Mrs. William H. Crisp, Editorial Work; Mrs. William Stanley, Membership; Mrs. Robert Kosanky, Flower Arrangements; Mrs. Theodore Washburne and Mrs. Graham Morrison, Plant Sale; Dr. Wayne Christian, Education; and Mrs. Earle Honnen, Garden Show Exhibit.

Don't forget that Saturday, October 17th will be **Clean-up Day** for the Children's Garden plots.

LECTURES

Dr. Helen Zeiner will conduct a course at Botanic Gardens House entitled "**Care and Propagation of House Plants**." There will be five Tuesday night sessions from 7:30 p.m. to 9:00 p.m. beginning on October 13th. Fee for members is \$4.00 and for non-members \$5.00.

Mr. Earl Sinnamon will conduct a course entitled, "**Care of Trees and Shrubs**" at Botanic Gardens House. This will be a series of five Wednesday lectures on October 14th, 21st, 28th and November 4th. There will be one Saturday field session. Details can be obtained later by telephoning Botanic Gardens House. Fee for members is \$8.00 and non-members \$10.00. Registration fees for both lecture series must be paid in advance.

Mr. William H. Anderson, Jr. will give an illustrated lecture on "**Colorado Wildflowers**" at Botanic Gardens House on October 29th at 7:30 p.m. Admission: 50c.

On November 27th, Mr. and Mrs. Middleman will give an illustrated lecture on **South African Plants** at Phipps Auditorium at 8:00 p.m. Admission: \$1.00 adults; children under twelve, free. Tickets are now available at Botanic Gardens House.

CALENDAR OF EVENTS

THE MONTH OF OCTOBER

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 1) 9:00 a.m. Colorado Federation of Garden Clubs Symposium (last day) | 14) Reviewers Club |
| 7:45 p.m. Orchid Society | 2:00 p.m. Editorial Committee |
| 5) 9:00 a.m. Denver Botanic Gardens Guild, 720 Marion St., Subject: "Shade Gardens." | 15) 10:00 a.m. to 2:00 p.m. Around the Seasons
7:30 p.m. Dahlia Society |
| 10:00 a.m. Around the Seasons | 16) 7:30 p.m. Botany Club |
| 7:30 p.m. Swingle Study Group | 17) 9:00 a.m. to noon Clean-up Day at Children's Garden |
| 6) noon to 4:00 p.m. Mountain View Garden Club | 21) 9:30 a.m. to 2:30 p.m. Fun With Flowers |
| 8) 7:30 p.m. Rose Society | 23) 10:00 a.m. Ikebana International
7:30 p.m. Men's Garden Club of Denver |
| 12) 9:30 a.m. Judge's Council | 25) 2:00 p.m. Colorado Cactophiles |
| 13) 10:00 a.m. Herbarium Study Group | |

OCTOBER NEWSLETTER

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NOVEMBER 1965

GARDENING MEMORANDA

Late November is the favorite time to prepare rose plantings for winter. In our region, hybrid teas, grandifloras, floribundas and miniatures all need winter protection. Best protection is provided by building a mound of soil around each bush to a height of 8 to 10 inches (lower for miniatures). The hardy shrub roses that give one burst of bloom in spring or early summer such as the common Austrian Copper, Persian Yellow, Harrison's Yellow and **Rosa rubrifolia** are hardy and need no protection over winter.

Don't dig the soil needed for the protective mounds near the rose bushes as this may expose some of the roots. Borrow the soil from the annual flower bed or from some other part of the garden and pay it back when the mounds are dug down next spring. If there is no place in your garden where you can obtain the soil necessary for mounding the roses, buy some potting soil from a nursery. There usually is some place in a garden where good potting soil can be used to advantage after the mounds are dug down in the spring.

Don't prune back severely the tops of rose bushes now. Wait until spring for that operation. The green stems and leaves still have work to do before severely cold weather stops their activity. At this time, cut back only the very tall stems and wayward branches that might be broken by strong wind or heavy snow. Just before mounding the soil around the bush draw the canes loosely together and tie them with stout cord or stripes of cloth. This will tend further to prevent breakage over the winter and will make it easier to mound the soil around the base.

The latter part of November is the proper time to protect trees from winter sunscald. All smooth-barked trees are subject to this trouble. The injury shows as dead bark mainly on the southwest side of the tree trunk and may extend from the ground up to the branches. Mountain ash, redbud, all kinds of maples and lindens are particularly liable to such damage.

This injury can be prevented by shading the trunk on the southwest side. The neatest way to provide such shade is to wrap the tree trunk with a special paper wrapping, available in most garden supply stores. The wrapping can be taken off in late spring if desired but many tree planters prefer to leave it on the year around. Such protection is needed until the bark becomes roughened with age and thick enough to provide considerable insulation from the sun's heat rays.

Leaf-raking is one of the principal garden chores in the fall. Removing the leaves prevents them from piling up on lawns or on low planting where they may pack down and damage the plants beneath. Cleaning up the leaves also gives the grounds a tidy appearance.

Before burning the leaves or sending them to the dump, see how many you can work into the soil in your shrub border, perennial bed or around trees. Use a spade for small areas and a power rototiller for large areas. Leaves thoroughly mixed with the soil will decompose

(Continued on back page)

ANNOUNCEMENTS

Associates Activities: The Conservatory Committee is currently being organized and the first meeting was held at 1:00 p.m., October 27, at 909 York Street. Mr. Ernest Bibee conducted a tour of the greenhouses and conservatory and a plan for training guides was established. This training promises to be most exciting and offers a wonderful opportunity for learning about the exotic plants. Any one interested in joining the committee should call the chairman, Dr. Robert Perry: 738-6280.

In anticipation of the holiday season and the opening of the conservatory, the Arts and Crafts group has assembled a large supply of preserved plant materials and welcomes anyone interested in handcraft to the regular workshop on November 4, 10:00 a.m., 909 York St.

Lecture Series: Dr. Estella B. Leopold, Botanist with the U. S. Geological Survey will present an illustrated lecture, "Fossil Pollen and Forest History" at Phipps Auditorium on Tuesday, November 30, at 8:00 p.m.

To plant enthusiasts, pollen is essential in the life cycle of seed plants but to hay fever sufferers, it brings annual discomfort. However, to the scientist the study of fossil pollen and spores in recent years has revealed exciting additional facts concerning the exodus of prehistoric man from Mesa Verde, the correlation of coal seams in Indiana and the itinerary of ancient maples in California. These and other recent disclosures will be discussed in this exciting lecture.

Air-borne pollen and spores eventually settle to become a part of the continuing accumulation of sediments at the earth's surface. These pollen grains, usually less than one-hundredth of a millimeter in size, have the distinction of being the smallest plant part that can be identified to genus. Pollen from different families and most genera are of different shapes and sizes and are variously ornamented so that they can be told apart. As fossils, pollen and spores represent a virtual library of scientific information relating to past vegetation, climate and even plant evolution.

Dr. Leopold's talk is the fourth in the current lecture series. Single admission tickets are available for \$1.00 at the door.

Important Notice: When mailing individual copies of *The Green Thumb* magazine, 6¢ postage is required. The permit number printed on the back cover is used only when bulk mailings are made.

Denver Botanic Gardens extends a cordial welcome to **new members**: Mrs. Medford G. Klein, Joe Hudiburg, Mrs. Jose Barchilon, Miss Hazel M. Moore, Myrtle McDowell, Mrs. C. J. Downing and Lillian Ryan.

Congratulations to Herbert C. Gundell, Colorado State University extension agent in Denver County for being awarded the Epsilon Sigma Phi professional excellence award. Mr. Gundell, also a Denver columnist and radio and television personality, received the award from the Extension Service for "constant professional improvement which has led to his recognition as a horticultural leader in the Rocky Mountain area".

quickly. They loosen tight clay and tighten loose sand and also increase its water-holding capacity.

You can make good leafmold or compost from leaves. Don't be discouraged by the complicated directions for making compost found in garden books and magazines. Some gardeners and, especially, garden writers want to make elaborate rituals out of simple garden operations. Nature made good material for improving soil from

leaves long before man got around to making compost. If you have time to make compost according to the recommended formula, all well and good. If not, you can make a good product for conditioning your soil by simply piling up some leaves in some corner of the garden, weighting them down somehow so that they do not blow away and keeping them well watered. By spring they will be fairly acceptable but they will be better after a year or two.

CALENDAR OF EVENTS

MONTH OF NOVEMBER

- | | | | |
|---------------|---------------------------------------|-----|---------------------------------------------------------------------------|
| 1) 7:30 p.m. | Swingle Study Group | 11) | House Closed—Veteran's Day |
| 2) 4:15 p.m. | Education Committee | 13) | 10:00 a.m. Men's Garden Club of Colo. |
| 7:15 p.m. | Open Space Council | 15) | 4:00 p.m. Denver Botanic Gardens Board |
| 7:30 p.m. | American Society Landscape Architects | 16) | 1:00 p.m. Rocky Mountain African
Violet Council |
| 4) 10:00 a.m. | Gift Shop Workshop | 18) | 10:00 a.m. Around the Seasons Club
7:30 p.m. Dahlia Society |
| 7:45 p.m. | Orchid Society | 19) | 7:30 p.m. Botany Club |
| 8) 2:00 p.m. | Library Committee | 26) | 10:00 a.m. Ikebana International
7:30 p.m. Men's Garden Club of Denver |
| 9) 10:00 a.m. | Herbarium Committee | 28) | 2:00 p.m. Colorado Cactophiles |
| 10) 9:15 a.m. | Denver Botanic Gardens Guild | | |
| 12:00 noon | Colorado Garden Show Board | | |
| 2:00 p.m. | Green Thumb Editorial Committee | | |

NOVEMBER NEWSLETTER

DENVER BOTANIC GARDENS, INC.

909 York Street, Denver, Colorado 80206

Non-Profit Org.

U. S. POSTAGE
PAID
Permit No. 205
Denver, Colorado

Green Thumb Newsletter

LAWRENCE A. LONG, President

DR. A. C. HILDRETH, Director

HELEN M. VINCENT, Editor

DENVER BOTANIC GARDENS, INC.

909 YORK

TELEPHONE: 297-2428 or 297-2632

DECEMBER 1965

GARDENING MEMORANDA

By this time of year, all gardens should have been prepared for winter. This means that the storage organs of such tender perennials as canna, dahlia, gladiolus and tuberous begonia should have been dug and stored; bedding roses and other not-quite-hardy shrubs should have soil mounded around their bases; trunks of smooth-barked young trees, especially maples, mountain ashes, redbuds and lindens, should have their trunks wrapped or otherwise protected on the southwest side from the winter sun in order to prevent winter sunscald. If you haven't already attended to these chores, do them at once.

Another important job in preparation for winter is irrigation. This is a "must" after the dry fall we have just experienced. All trees and shrubs (including roses) should go into winter with "wet feet". They should have a heavy watering in late November or early December that will soak deeply into the soil and cover the whole area under which the roots have spread. Roots of a tree normally extend farther out from the trunk than do the limbs.

If you have one of those patented deep-irrigators for watering trees and shrubs, all well and good. For those who don't, remember that such appliances will accomplish nothing more than can be done with patience and an ordinary garden hose. Deep-watering devices merely do the job quicker. With ordinary equipment it is necessary to apply the water slowly and over a long period of time in order to obtain the deep penetration desired and to prevent excessive run-off.

Evergreen trees and shrubs especially need watering now and also later in winter, as they carry their full foliage the year around. They lose water rapidly during sunny, windy weather of winter and early spring. Unless the soil is well supplied with water evergreens may die or suffer serious damage.

Birch trees also have a high water requirement during winter. Much of the killing back seen in the tops of birch trees result from lack of water in winter rather

than from damage by insects or diseases.

Trees, shrubs and perennials growing out-of-doors in planters or other containers are very likely to need winter watering because of the limited volume of soil in which they are usually grown.

Most perennials and particularly those that have just been fall-planted and those with shallow root systems such as chrysanthemums, need watering in December and occasionally during the winter and early spring.

Lawns, especially those seeded this fall and lawn areas in places much exposed to winter wind and sun will benefit from irrigation now and at intervals during the winter and early spring months.

Upright juniper trees frequently have their branches broken or splayed out of shape by heavy snow. This can be prevented easily and inconspicuously by binding the top in the fall or early winter before heavy snows are expected. Use a stout cord and tie one end to the trunk or a strong branch at the base of the tree. Then wind the cord in a loose spiral around the outside of the tree, pulling the branches rather firmly together until the top is reached. Tie the end of the cord tightly so that the spiral will not unwind. A green colored cord such as is used by florists will be less conspicuous than the usual white or brown.

December is one of the months in which strong sprays can be applied to trees and shrubs for control of hard-to-kill insects such as oystershell scale, San Jose scale, cottony maple scale and pine needle scale on pines. Dormant strength oil sprays are usually applied to deciduous trees and shrubs. It is not safe, however, to use oil sprays on evergreen in this climate, and they are not recommended. Lime sulphur dormant strength, can be used safely on both evergreen and deciduous species, with two exceptions.

These exceptions are piñon pine and the wayfaring tree, Viburnum lantana. Both seem to be very sensitive to sulphur.

ANNOUNCEMENTS

CHRISTMAS TREASURES FOR SALE AT DENVER BOTANIC GARDENS GIFT SHOP: Cherished books, artistic dried arrangements, practical Wilkinson hand pruners, and a variety of hand crafted wreaths, candle boards and favors fashioned of cones and pods are offered at this holiday season. (Some handicrafts are in limited supply.)

A wide selection of books includes special children's editions on wild-flowers and insects. Among the specialized books pertaining to conservatory plants is The Colorful Houseplants, Bromeliads, by Jack Kramer. Several books by Emma Cyphers are offered including her popular Fruits and Vegetable Arrangements. A rare volume, Manual of Plants of Colorado by H. D. Harrington is available.

A bonus gift suggestion for rose hobbyists is Rose Culture in the Denver Area, a special issue of The Green Thumb magazine. Bookmarks of pressed flowers

and hand decorated match boxes are appropriate stocking-stuffers.

Denver Botanic Gardens extends a cordial welcome to NEW MEMBERS: Mrs. Bernhard M. Amdahl, Mrs. George J. M. Kell Mr. & Mrs. Herbert H. Hatfield, Mrs. Migno D. Lake, Dr. William R. Brown, Mountain States Tel. & Tel. Co., Public Service Co. of Colorado, Mr. & Mrs. J. Clinton Bowman, Mr. Austin Marquis, Natkin & Company, Mr. Gerald L. Schlessman, May D & F Stores, Mr Virginia W. Hill, Mrs. Frederick Deeks, Mr & Mrs. Leigh H. Norgren, Homer Reed, Ltd., Ideal Cement Co., Mr. Coloman Jonas, Pre-stressed Concrete Co., Dr. & Mrs. William S. Davis, Mr. David S. Day, Mr. & Mrs. Robert B. Jacks, Mrs. A. E. DeRicques, Mr Dorothy Green, Mr. & Mrs. George D. Arnold Adolph Coors Co., Denver Clearing House Association, Denver Dry Goods Co., Faris-Moritz Equipment Co., Garden Club of Denver Gordon Construction Co., Mrs. Robert W. Halpenny, Mr. Frank Johns, Karman, Inc., Mr. Harold Kuntze, Merrill Lynch, Pierce, Fenner & Smith, Inc., Moore Mortuary, Mr. Harry Schmidt, S. W. Shattuck Chemical Co. Mr. R. S. Shannon, Mr. W. J. Slifer, Stapleton Drug Co., Tipton & Kalmbach, Inc Columbia Savings & Loan, Drs. Humphrey, Siersma & Jackson, McCoy Company.

CALENDAR OF EVENTS Month of December

- | | | | | | |
|----|------------|---------------------------------|-----|-----------------|-------------------------|
| 1) | 9:00 a.m. | Denver Botanic Gardens Guild | 14) | 10:00 a.m. | Herbarium Study Group |
| | 12:00 noon | Colorado Garden Show Board | 15) | 9:30 a.m. | Fun with Flowers |
| | 1:00 p.m. | Conservatory Committee | 16) | 10:00 a.m. | Around the Seasons Club |
| 2) | 10:00 a.m. | Gift Shop Workshop | | 7:30 p.m. | Dahlia Society |
| | 7:45 p.m. | Orchid Society | 17) | 9:00 a.m. | Garden Club of Denver |
| 6) | 9:30 a.m. | Gift Shop Committee | | 7:30 p.m. | Botany Club |
| | 7:30 p.m. | Swingle Study Group | 25) | MERRY CHRISTMAS | |
| 8) | 12:00 noon | East Side Garden Club | 26) | 2:00 p.m. | Colorado Cactophiles |
| | 2:00 p.m. | Green Thumb Editorial Committee | | | |

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• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

JANUARY 1966

GARDENING MEMORANDA

In our climate, January is the month of least activity in the garden. Yet there is worthwhile work that can be done to get the overwintering plants successfully through their dormant period and also to prepare for the next gardening season.

Tools: If you have a reasonably comfortable place in which to work, put your garden tools in good condition now. Clean off any soil carelessly left on soil-working implements. With steel wool, polish off any rust that has accumulated on metal parts. Tighten handles. Rub down rough spots on wooden handles with fine sandpaper. Straighten rake teeth and fork tines. Sharpen cutting edges of spades, shovels, hoes and trowels. Wipe all metal parts with an oily rag to prevent rust. Take hedge shears and pruning shears apart and clean thoroughly. Sharpen blades carefully. Put a few drops of light oil around the screw.

Machinery: Now is the time to overhaul all garden machinery such as mowers, edgers, rototillers, power clippers and sprayers. Your service man will do a better job on them now than during the rush period of spring. If you do the work yourself you now have plenty of time to do a thorough job of it and to place orders for broken or badly worn parts. Take time to look over your little-used equipment such as the wheelbarrow and the fertilizer spreader. Grease and oil them as necessary. A coat of paint will brighten them up and prevent rust.

Sprayers and dusters are too often neglected with the result that they do poor work or fail to work when most needed. Clean tanks, nozzles, and pumps thoroughly. Replace worn hoses and gaskets and test with water to make certain that all are in good working order. Dealers in standard makes of sprayers usually have, or can obtain for you, repair parts so that it is not necessary to throw a whole sprayer away because some small part is not functioning.

Irrigation Equipment: Now is the time to put your portable irrigation equipment in working condition for next gardening season. Clean and adjust nozzles, replace worn gaskets and washers and mend hoses. Most Colorado gardeners now know that not all irrigation

equipment should be put in dead storage when the bluebirds fly south. A certain amount should be left where it can be put into use quickly for watering on warm winter days.

Winter Irrigation: In our semi-arid climate, drought is a garden problem in January as well as in July. Evergreens are more likely to suffer from winter drought than deciduous species. Plantings on south slopes dry out quicker than on other exposures. In areas close to the south side of a building, wall, tight fence or even a low-branched evergreen tree, low plantings and lawns dry out very rapidly. Rays of the low-angled winter sun are reflected downward from such objects, warming the soil and the plants in such locations considerably above the general atmospheric temperature and causing the plants to lose much moisture. If this moisture is not replaced by irrigation the plants may be killed or seriously injured.

ANNOUNCEMENTS

CRAFT WORKSHOP THURSDAY: Instructions in making nut animals will be given at the regular Arts and Crafts workshop at Botanic Gardens House Thursday, Jan. 6 at 10:00 a.m. These little animals and figures made from nuts and seed pods are popular favors and imaginative gifts for convalescing children. Persons interested in learning to make these and other items for sale in the gift shop are invited to attend.

SAVE SMALL BOXES: A post-holiday reminder, Christmas card boxes and other small boxes with plastic lids are always needed at the gift shop for packaging handicraft items. Please leave such boxes with the hostess or Mrs. Vincent at Botanic Gardens House.

CONSERVATORY PREVIEW: Invitations will be going out to members of Denver Botanic Gardens for a preview of the new building on Friday, January 14 from 3:00 p.m. until 5:30 p.m. Your invitation will be your admission ticket so be sure to bring it with you.

CONSERVATORY DEDICATION - The official dedication of the new Conservatory will be held on Saturday, January 15 at 10:00 a.m. The public is cordially invited to attend. The building will remain open to visitors until 6:00 p.m.

ILLUSTRATED LECTURE - COLORADO WILD FLOWERS on Friday, January 28, 8:00 p.m. at Botanic Gardens. This is one of the bonus lectures for which season ticket holders are entitled to make reservations without charge. Please make your reservation by January 21 by calling 297-2428 or coming to Botanic Gardens House, 909 York Street. Any unreserved seats after that date will be made available to the general public. Adults: \$1.00. Children: .50¢. Dr. and Mrs. William Anderson will present this lecture. Dr. Anderson is Principal of South High School.

List of new members will be published in next month's issue.

The seating capacity is limited to 60 people and the reservations will be made on a first come, first served basis.

CONGRATULATIONS to Dr. A. C. Hildreth, Director of Denver Botanic Gardens for receiving from the National Chrysanthemum Society an Outstanding Service Award for his work in originating chrysanthemums of exceptional hardiness. This work was conducted over a period of more than two decades while he was employed by the U. S. Department of Agriculture as Superintendant of the Cheyenne Horticultural Field Station at Cheyenne, Wyoming.

COLORADO NURSERYMENS' and ARBORISTS' SHORT COURSE and CONVENTION at Colorado State University - Student Center, January 24-25, 1966. For further information, contact Charles M. Drage, Colorado Extension Service, Colorado State University; Ft. Collins, Colorado.

CALENDAR OF EVENTS
Month of January

- | | | | |
|----------------|------------------------------------------------------|----------------|--------------------------------------------------------------|
| 3) 1:00 p.m. | Rocky Mountain African Violet Council | 14) 3:00 p.m. | Conservatory Preview - Denver Botanic Gardens Members only |
| 5) 12:00 noon | Colorado Garden Show Annual Meeting | 15) 10:00 a.m. | Official Dedication of Conservatory - public is invited. |
| 6) 10:00 a.m. | Gift Shop Work Shop | 20) 10:00 a.m. | Around the Seasons Club |
| 7) 11:00 a.m. | Civic Garden Club Board Meeting followed by luncheon | 7:30 p.m. | Dahlia Society |
| 10) 7:30 p.m. | American Society of Landscape Architects | 21) 7:30 p.m. | Botany Club |
| 11) 10:00 a.m. | Herbarium Study Group | 23) 2:00 p.m. | Colorado Cactophiles |
| 12) 9:30 a.m. | Denver Botanic Gardens Guild | 28) 10:00 a.m. | Ikebana International |
| 1:00 p.m. | Conservatory Guides Meeting at Conservatory | 30) 12:00 noon | Presidents Council Tea for Benefit of Denver Botanic Gardens |
| 2:00 p.m. | Editorial Committee | | |

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HELEN M. VINCENT, Editor

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• 909 YORK

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FEBRUARY 1966

GARDENING MEMORANDA

Order Seeds and Nursery Stock Now: February is the month when gardeners are deluged with new seed and nursery catalogs and tempted with advertisements which make great promises for the coming garden season. Place your orders early before dealers are sold out of items that you want. You can order nursery stock now and request delivery at whatever time you wish to plant.

Inspect Stored "Bulbs": To determine if they are wintering satisfactorily, examine Gladiolus corms and tuberous roots of Cannas, Dahlias and tuberous Begonias which are stored for winter. Decayed or moldy areas indicate that they are stored under conditions of too much moisture. Discard any that are badly decayed. Spread the others out in a frost-free place to dry. After all visible moisture has been dried off the surface, repack and keep under drier conditions than formerly.

Dahlia and Canna roots are especially liable to dry out and become shriveled in storage. If not too severely shriveled they may be plunged into water until they become plump again, after which they should be spread out and dried until the surface is free of visible moisture and then repacked. Placing a layer of wet burlap over the packing material or covering it with a sheet of plastic will retard the shriveling.

If you have not already done so, treat Gladiolus corms now to destroy thrips by dusting DDT powder into the bags in which the corms are stored.

Remove Dead Trees: February is a good time to remove dead or dying trees. At this season the gardener is usually not so rushed with other duties and can take time to do the job properly. There are now no annual flowers that might be injured by the operations of felling the tree, cleaning up the top and removing the stump. Also, because perennial flowers and lawn grasses are in a dormant condition, there is less danger of damaging them in removing a nearby tree now than when

Dead or half-dead trees may harbor insects that will later spread to good, live trees. The wood and bark of such infested specimens should be disposed of by burning before the insects are reactivated by warm spring temperatures.

If the tree to be removed is of considerable size, it is advisable to employ the services of an experienced arborist. This may save a damage claim against you by a public utility company or neighbor, a hospital bill, or even your life.

ANNOUNCEMENTS

THE FIFTH WORLD ORCHID CONFERENCE, sponsored by the American Orchid Society, The Royal Horticultural Society and The Orchid Society of Southern California will be held in Long Beach, California, April 1 22, 1966. Address inquiries for attending to MR. A.F. WURTENBERGER, P. O. Box 343, Downey, California. There will be a series of tours to commercial and amateur orchid collections on the days preceding and following the Conference. For information write to MR. HUGO FREED, Tours Chairman, 5731 S. Bonsall Avenue, Malibu, California

DR. RALPH BAKER, Colorado State University, Department of Plant Pathology, will lecture at Treat Hall, Colorado Women's College on FRIDAY, FEBRUARY 26, 1966. His subject will be: Exploring Extraterrestrial Plant Pathology and Some Projected Biosatellite Explorations. This is the second to the last lecture in the 1965-1966 series. Admission is \$1.00 for adults who do not have season tickets and .50¢ for students.

THE TELEPHONE NUMBER for the Denver Botanic Gardens Conservatory is 297-2348. Anyone wishing to schedule a guided tour for a group can make arrangements by calling this number. More tour guides are needed and anyone wishing to volunteer for this service will be welcome. Information regarding the conservatory may also be obtained by dialing this number.

olic Saturday through Thursday from 9:00 . to 5:00 p.m. and on Friday from 9:00 . until 9:00 p.m. The Gift Shop is open am 10:00 a.m. until 4:00 p.m.

WELCOME BACK TO DR. JAMES FEUCHT who was formerly associated with Denver Botanic Gardens. After spending several years as Assistant Professor of Ornamental Horticulture at Rutgers University, Dr. Feucht is associated with Colorado State University Denver Metropolitan Area Extension Horticulturist. He will do research work on local horticulture problems and establish up-to-date educational programs in ornamental horticulture, working closely with the County agents and the horticultural organizations in the five-county area. His office is located in Botanic Gardens House.

Denver Botanic Gardens extends a cordial welcome to NEW MEMBERS: Mrs. Jane A. Middlebrook, Mr. & Mrs. Harlow C. Platts, Mr. Ned

Marshall, Mr. & Mrs. David A. Spencer, Mrs. Thomas D. Waugh, Mrs. Donald M. Culver, Mr. & Mrs. Walter Meissner, Mr. Dean C. Wellman, Miss Edith W. Trosper, Mrs. Herman Jaeckel, J. W. Wendt, The Sunbonnet Garden Club of Aurora, Fort Morgan Garden Club, Mrs. R. F. Fowler, Friendly Gardeners, Mr. Harold Silver, Mrs. Rike D. Wooteen, Bow Mar Gardeners, Mrs. Constance Smith, Mr. & Mrs. T. E. Taplin, Mrs. Delos Chappell, The Barnes Corporation, Founders Mutual Deposit Mr. & Mrs. Edward P. Connors, Ikebana International, Mrs. William D. Miller, Mrs. James S. Holme, Mr. & Mrs. David Grimes, Mr. Charles Cascio, Edward E. Nelson, Mrs. Thomas Chapman, Mrs. Frank A. Traylor, Jr., Mr. & Mrs. Jack Kennell, Mr. Richard P. Brown, Vern Hagesstad Motor Co., Merchants Oil Co., Dr. & Mrs. Leon A. Olsen, Mr. J. M. Omura, Mr. John R. Evans, Dr. Howard C. Reynolds, Mr. & Mrs. Lee W. Van Etten, Mrs. E. Tamminga, Boettcher & Company, Mr. Munroe L. Lyeth. (Continued next month).

CALENDAR OF EVENTS Month of February

9:30 a.m.	Editorial Sub-committee
7:30 p.m.	American Association of Landscape Architects
7:30 p.m.	Colorado Chapter of American Planners
10:00 a.m.	Gift Shop Workshop Committee
7:30 p.m.	Denver Orchid Society
12:00 noon	Civic Garden Club
9:30 a.m.	Gift Shop Committee (at Conservatory)
10:00 a.m.	Herbarium Study Group
9:30 a.m.	Denver Botanic Gardens Guild
2:00 p.m.	Green Thumb Editorial Committee

14)	7:30 p.m.	Colorado Open Space Council
17)	10:00 a.m.	Around the Season Club
18)	7:30 p.m.	Botany Club
21)	10:00 a.m.	Plant Sale Committee Meeting
22)		Washington's Birthday - House Closed
25)	10:00 a.m.	Ikebana International
	7:30 p.m.	Men's Garden Club of Denver
27)	2:00 p.m.	Colorado Cactophiles

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• 909 YORK

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Conservatory Superintendent, Ernest A. Bibee - 297-2810 Conservatory & Gift Shop - 297-2348

MARCH 1966

GARDENING MEMORANDA

March is considered a spring month but you might never guess it from Colorado weather. Our March weather is fickle, now blowing hot and now cold. The gardener who can shift his garden chores to match the moods of the weather will be able to work always in comfort and will get all his spring work done on time.

On the bad days order the seeds, bulbs and plants that you have been intending to since the first of the year. Examine the stored tuberous roots of dahlias and the rootstocks of cannas to see that they are either rotting from too much moisture or shriveling from excessive drying. Adjust the moisture of the packing material or the humidity of the storage room accordingly. It is a long time before these plants can be set in their summer locations.

If you haven't already done so, put the garden tools and machinery in good working order. This will avoid delays when you are ready to use them.

March is a good time to recondition the soil in shrub and flower beds and borders by working into them some compost, leaf mold, manure, peat or other organic material. Such treatment will loosen up a tight clay soil, break clods and prevent the formation of a crust on the soil surface. The same material will also tighten up sandy soils that are too loose.

March is a planting month for certain kinds of plants. Whenever the soil is free from frost all trees and shrubs, either bare-root or balled-and-burlapped stock, may be planted. Sod for lawns may be laid now. Keep all new plantings well watered to prevent their drying out.

Annual bedding plants on the market are now so good and so plentiful that many gardeners have forgotten that annuals can be seeded out-of-doors where they are to bloom. March is a good time to seed several of the hardy annuals such as bachelor button,

calendula, China aster, cosmos, gloriosa daisy, larkspur, marigold, snow-on-the-mountain, sweet alyssum and sweet pea.

For direct seeding of annuals, prepare the soil thoroughly to obtain a fine, firm seed bed. Sow the seeds evenly and not too thickly and cover lightly. Large seeds should be covered deeper than small seeds. Water as necessary to prevent the soil from drying out, but avoid standing water on the seeded area as this may cause the seeds to rot. Thin the seedlings to the proper spacing before they become large enough to crowd each other.

ANNOUNCEMENTS

Many long-time members of The Colorado Forestry and Horticulture Association (now disbanded) will be saddened by the news of the death of Miss Alice Wood of Colorado Springs. Miss Wood was former assistant editor of The Green Thumb magazine which is now the official publication of Denver Botanic Gardens.

The DENVER ROSE SOCIETY announces that its ANNUAL ROSE SHOW will be held in the lobby of the First National Bank of Denver, 17th and Welton Streets, on Sunday, ~~February~~ June 26. Hours: 1:00 p.m. to 5:00 p.m. Admission is free. The show will be governed by the standard rules and regulations of the American Rose Society. All competitive exhibits are open to all members of the Denver Rose Society and to American Rose Society members of all Rocky Mountain District rose societies: Colorado Springs, Boulder, Longmont, Lafayette, Colorado and Salt Lake City, Utah.

This is a reminder that the fund drive for Horticulture Hall is still in progress and that more than a third of the required funds have already been received or pledged. All persons who have received contributors

cards are urged to complete and return them at once.

COLORADO NURSERYMEN ELECT - Harry Swift of Golden, out-going president of the Colorado Nurserymen's Association, turned over his duties to the new officers elected at the group's annual meeting at Colorado State University the latter part of Jan. The new officers are: Charles L. Watenpaugh, Country Fair Garden Center, Denver, President; Robert Woodman, Woodman Nursery, Littleton, Vice president; and Robert Horst, Kroh Brothers Nursery, Loveland, Secretary-treasurer.

Denver Botanic Gardens extends a cordial welcome to NEW MEMBERS: Mr. Richard K. Gilbert, Mrs. Charles V. Petersen, Mary D. Pinkston, Mr. Jerome E. Dingerson, Mr. Arnold S. Hojem, Mrs. Carl L. Smith, Mrs. Harland T. Close, Mrs. E. S. McNeil, Mrs. Aileen Sears, Mr. Scott L. Palmer, Mrs. Irene G. Philbin, Mrs. Robert K. Timothy, Mrs. Warren L. Flock, Mr. Peter F. Hovell, Mrs. Helen M. Perry, Mr. John B. Gilmore, Miss June Wurtzebach, Gertrude E. Miller, Virginia M. Weigand, Mr. & Mrs. Willard Sollers, Mrs. Carl Boyer, Jr., Mr. David G. Milne, Mrs. C. W. Reed, Mr. John J. Sullivan, Mrs. D. R. C. Brown, Miss Alice Hale, Mrs. Hortense Kirkwood and Mrs. Thomas T. Wilson.

Mr. Ernest A. Bibee, Superintendent of the conservatory at Denver Botanic Gardens will lecture at Treat Hall, Colorado Women's College on Friday, March 25. His subject will feature a review of the conservatory and some of its possibilities as an educational facility. Season tickets are good for admission. Individual adult tickets are \$1.00. Students: 50¢. Time: 8:00 p.m. This is the second to the last of the lectures presented in the 1965-66 series.

Congratulations to George W. Kelly who received the "Outstanding Nurseryman of 1965" award at Colorado State University Monday, January 24. The presentation opened the two-day Colorado Nurserymen's and Arborists' Short Course and Convention at CSU. Mr. Kelly said: "Of the awards I have received in the past 10 years, this one means the most to me because it is from the people who know and work with me". Harry Swift presented the award and stated that: For almost 40 years many of those in the profession have recognized George as "Mr. Horticulture in Colorado". Mr. Kelly asked that the cash award be given to an outstanding student studying in CSU's Department of Horticulture.

CALENDAR OF EVENTS Month of March

- | | | | | | |
|-----|------------|------------------------------------------|-----|------------|---------------------------------------|
| 2) | 7:30 p.m. | American Society of Landscape Architects | 15) | 1:00 p.m. | Rocky Mountain African Violet Council |
| 3) | 10:00 a.m. | Gift Shop Workshop | 17) | 10:00 a.m. | Around the Seasons Club |
| | 7:30 p.m. | Denver Orchid Society | | 7:30 p.m. | Dahlia Society |
| 8) | 10:00 a.m. | Herbarium Study Group | 18) | 7:30 p.m. | Botany Club |
| 9) | 9:30 a.m. | Denver Botanic Gardens Guild | 25) | 10:00 a.m. | Ikebana International |
| | 2:00 p.m. | Green Thumb Editorial Committee | | 7:30 p.m. | Men's Garden Club of Denver |
| 10) | 10:00 a.m. | Gift Shop Workshop | 27) | 2:00 p.m. | Colorado Cactophiles |
| | 7:30 p.m. | Rose Society | | | |

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APRIL 1966

GARDENING MEMORANDA

Dormant spraying of evergreens to control scale and aphids must be done before the buds open. This is usually about the end of April, in the Denver area. The only safe and effective dormant spray to use on evergreens is lime-sulphur.

April is the favorite month for applying pre-emergence treatments for crabgrass. These materials control crabgrass and certain other annual lawn weeds by preventing their seed from germinating. Applications must, therefore, be made before soil and air temperatures are warm enough to germinate the seed. Usually, this will be about the end of April in the Denver area. Pre-emergence treatments are useless after the seeds have germinated. Another kind of chemical must be used to kill the plants.

Summer blooming ornamental trees and shrubs can still be pruned during April. As their flower buds will be formed later, on wood of this year's growth, spring pruning will not remove any flowers or blossom buds.

Do not prune spring-blooming trees and shrubs at this season. Pruning them before bloom will only reduce the number of flowers. Prune them only after their blooming period is passed, in late spring or early summer.

If you haven't already done so, plant your bachelor button, calendula, coreopsis, larkspur, Shirley poppy, sweet alyssum and sweet pea seed now, in the place where the plants are to flower. Such plants will bloom almost as early as those which are started under glass and later transplanted to the garden.

April is a good time to prune evergreen trees and shrubs and to repair any damage caused by wind and snow during winter or early spring. Ordinary gaps in the foliage caused by such corrective pruning will fill in quickly when spring growth starts.

ANNOUNCEMENTS

In preparation for the Annual Plant Sale to be held May 6 and 7 at Botanic Gardens House and for training sales people, forums will be held, with a panel of experts, on the following dates at Botanic Gardens House: Houseplants: April 18, 9:30 a.m.; Perennials: April 19, 9:30 a.m.; Annuals: April 20, 9:30 a.m. Anyone wishing to volunteer their services should plan to attend. Also urgently needed now are clay and plastic pots of all sizes. These may be left at the west end of the greenhouse. Home garden donations should be potted and labeled. They may be delivered after May 2 to Botanic Gardens House at 909 York Street.

"Prelude to Spring" - Colorado State University announces its Annual Horticulture Show at the armory in Fort Collins: April 21 7:30 a.m. to 10:00 p.m., April 22, 1:00 p.m. to 10:00 p.m., April 23, 10:00 a.m. to 10:00 p.m., April 24, 1:00 p.m. to 5:00 p.m. and the Plant Sale on April 24 at 5:00 p.m. Dr. W. D. Holley, Horticulture Department, C.S.U., Fort Collins, is in charge of this show.

Mrs. Raymond Watts, Naturalist Emeritus, will give an illustrated lecture on Friday, April 29, at 8:00 p.m. at Treat Hall, Colorado Woman's College. Mrs. Watts is a well known lecturer and her subject will be timely and interesting. This is the final lecture in the Denver Botanic Gardens 1965-66 series. Single admission tickets are \$1.00 for adults and 50¢ for students.

Arbor Day is celebrated on Friday, April 15, this year. Plant a tree!

Circle the date June 26, 1966 on your calendar. The Annual Rose Show of the Denver Rose Society will be held from 1:00 p.m. to 5:00 p.m. in the lobby of the First National Bank of Denver. Admission free.

Guides to lead tours in the outside (York Street Unit) gardens are imperatively needed due to the increased public interest.

Three training sessions have been scheduled for old and new guides: 9:30 - 11:30 a.m. on Tuesday, April 12; Monday, April 25th and one in May. For further information call Mrs. Ted Washburne, 255-9854.

Denver Botanic Gardens extends a cordial welcome to NEW MEMBERS: Sperry & Hutchinson, R.L. Randolph, Mr. Robert R. Satterlee, Miss Beverly V. Peterson, Mrs. Dorris C. Flores, Mrs. E. C. Payson, Mr. & Mrs. Ned L. Lucas, Mrs. Margaret G. Altvater, Mr. Ralph F. Arndt, Horticultural Arts Society, Colorado Springs, Flowerland Garden Center, Broomfield, Mrs. George McLane, Richard R. Inglis, Mrs. Charles A. Chidsey III, Mr. William Kirk Evans, Mr. Jack Robertson, Miss Blanche E.

Duncan, Mr. Robert E. Miller, N.C. Steel, Mrs. Dorothy M. Hill, Mr. & Mrs. George A. Stoecker, Mr. James J. Palmer, Dr. & Mrs. Bernard Hyman, Mievel A. Sanchez, Barbara Morrissey, Mabel Rutschman, Mrs. Lucian E. Pope, Mrs. Alta D. Gilbertson, Mr. & Mrs. Einar Saviz, Dr. & Mrs. W. Grayburn Davis, Dr. E. Stewart Taylor, Mrs. E. Miner Morrill Mrs. Max Kaplan, Mr. Donald P. Moore, Jane Patricia Wood, E.L. Zybura, Anna M. Parmley, Mr. William J. Malloy, Mrs. Francis Earle, Jr., Mrs. R. Anschicks, Mrs. James D. Ford, Mrs. A. P. Wilking, Mrs. George P. Caulkins, Jr., Mr. Robert D. Richardson, Mr. & Mrs. Donald E. Werschky

CALENDAR OF EVENTS Month of April

5)	9:30 a.m.	Gift Shop Committee	18)	9:30 a.m.	Plant Sale Forum - House plants
	10:00 a.m.	Editorial Sub-committee	19)	9:30 a.m.	Plant Sale Forum - Perennials
6)	4:00 p.m.	Children's Garden - Advanced Group	20)	9:30 a.m.	Plant Sale Forum - Annuals
7)	10:00 a.m.	Gift Shop Workshop	21)	10:00 a.m.	Around the Seasons Club
	4:00 p.m.	Children's Garden - Beginner's Group		7:30 p.m.	Dahlia Society
	7:30 p.m.	Orchid Society	22)	10:00 a.m.	Ikebana International
12)	10:00 a.m.	Herbarium Study Group		7:30 p.m.	Men's Garden Club of Denver
13)	9:30 a.m.	Denver Botanic Gardens Guild	24)	2:00 p.m.	Colorado Cactophiles
	2:00 p.m.	Editorial Committee	27)	9:30 a.m.	Garden Club of Denver - Flower Arranging Workshop
14)	7:30 p.m.	Denver Rose Society			
15)	7:30 p.m.	Botany Club			

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DENVER BOTANIC GARDENS, INC.

909 YORK

TELEPHONE: 297-2428 or 297-2632

Conservatory Superintendent, Ernest A. Bibee - 297-2810 Conservatory & Gift Shop - 297-2348

MAY 1966

GARDENING MEMORANDA

Early May is the last chance for planting bare-root trees and shrubs, including roses. Even then one should plant only a stock that has been kept in cold storage to prevent growth from starting. Balled-and-burlapped stock of both evergreen and deciduous species still can be planted successfully if it has been properly cared for after digging. Stock grown in containers can be planted anytime during the growing season.

May is planting time for annuals. In the Denver area, only the last few days of May are considered entirely safe from frost. Consequently, many gardeners plant all their annuals the 30th of May or later. Several of our annuals, or species used as annuals, however, will stand moderate frost if tempered to cold gradually. Among these are calendula, gloriosa daisy, Iceland poppy, larkspur, nierembergia, petunia, snapdragon and sweet alyssum. Properly hardened, these plants may be set out by the 10th of May without much danger of loss from freezing.

Gardeners who start such plants in hobby greenhouses or in warm rooms in their homes, should expose the plants out-of-doors for a few days at temperatures above freezing before setting them in their permanent locations. Much the same purpose can be accomplished by setting them out during mild weather and covering them for the next few nights if frost is predicted.

This is the time to start the annual war on dandelions in lawns. Dandelion killers are sold by all dealers in garden supplies. Apply as directed by the manufacturer. These chemicals work best after the dandelions have made considerable top growth and when the weather is warm. Remember that the best dandelion preventive is a dense grass sod. About mid-May is a good time to start fertilizing lawns that need it.

Most lawns will benefit from an application of an iron compound such as chelated iron or iron sulphate. Use chelated iron as directed on the package. Iron sulphate should be applied at a rate of from 1 to 3 pounds to the thousand square feet. It may be applied as a powder mixed with other fertilizer or dissolved in water and sprayed on the grass. Keep it away from concrete, light colored brick and stone.

ANNOUNCEMENTS

Annual Plant Sale to be held at Denver Botanic Gardens, 909 York Street, from 9:30 a.m. to 5:30 p.m. on Friday and Saturday, May 6 & 7. Corsages, house plants, bottle gardens, annuals, perennials, herbs, cacti and many exotics will be available. There will also be a browsing area for BOOKWORMS where books and periodicals will be sold at very moderate prices.

Gift Shop Workshop. There will be no session for this group in May because of the importance of preparing for the Plant Sale.

Conservatory Tour Guides are urgently needed. Because of the tremendous public response to the tour program we have been unable to carry the load. Call 297-2348 if you can participate as a tour guide and you will be contacted regarding an orientation program. This entails a morning or afternoon twice monthly. We desperately need your help in continuing with this fine educational program.

Large clumps of herbs are for sale now by the Denver Botanic Gardens Guild. Prospective buyers may call Mrs. Charles Arnold for details: 777-9404.

The Sunbonnet Garden Club of Aurora will present "Melody of Spring" flower show on May 31 at Luby's Cafeteria, Hoffman Height. The show is open to garden club members only due to size. Public is invited. No charge. 2:00 p.m. - 8:00 p.m.

Susan Ash's delightful CALLY COLUMBINE COLORING BOOK is available at the Gift Shop for the modest sum of 25¢. The pictures to be colored are of many native Colorado wild flowers and the colors to be used are indicated. This book appeals to children from the age of 4 to 10 and to some of the young-in-heart who are much, much more advanced in years.

Architectural pottery will be on display and for sale in the south room of the Conservatory during the Plant Sale. This is an opportunity to purchase outstanding patio pottery not usually available in Denver.

Welcome to New Members: Mr. Delbert S. Clark, Mr. Arthur T. S. Kent, Mr. G. J. Tomlin, H. Yanish, Kathryn Koehler, Dr. & Mrs. A. M. Patten, Rae W. Christensen, Miss Maude J. Reed, Mrs. Kenneth Russell and Mrs. William Graham. Dr. & Mrs. Donald N. Baldwin, Mr. & Mrs. G. Walter Bowman, Mrs. H. E. Day, Frank Miller, Mrs. R. H. Nagel, Mrs. Rogers Robinson, Mr. & Mrs. Burton A. Smead, Jr., Mrs. Joe A. Smeenk, Dr. & Mrs. Hermann B. Stein, Mr. & Mrs. Edward B. Wassom.

CALENDAR OF EVENTS

Month of May

2)	9:30 a.m.	Gift Shop Committee	16)	4:00 p.m.	Denver Botanic Gardens Board Meeting
	7:30 p.m.	Open Space Council	17)	1:00 p.m.	Rocky Mountain African Violet Council
5)	7:30 p.m.	Orchid Society	19)	10:00 a.m.	Around the Seasons
6)	9:30 a.m.	Plant Sale		7:30 p.m.	Dahlia Society
	5:30 p.m.		20)	7:30 p.m.	Botany Club
7)	9:30 a.m.	Plant Sale	22)	2:00 p.m.	Colorado Cactophiles
	5:30 p.m.		25)	9:30 a.m.	Garden Club of Denver Workshop
10)	10:00 a.m.	Herbarium Study Group	27)	10:00 a.m.	Ikebana International
11)	9:30 a.m.	Denver Botanic Gardens Guild		7:30 p.m.	Men's Garden Club of Denver
	2:00 p.m.	Editorial Committee	30)	Memorial Day - House Closed	
12)	9:00 a.m.	County Agricultural Agents			
	7:30 p.m.	Rose Society			

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GARDENING MEMORANDA

June 1966

By now, all seed stalks of tulips, daffodils and early flowering irises should have been cut off. Seed production is a drain on the plants. Instead of growing seeds, which you don't want, the plants had better be storing food in their underground bulbs or rhizomes for next years flower crop.

Insects and mites got a considerable set-back by unseasonable freezes this spring. When the weather warms up, however, they can increase rapidly and may cause serious damage before you notice them. Watch especially for the large dark grayish aphids on cultivated forms of the native juniper tree, Juniperus scopulorum. These pests seem to work in spring and fall at lower temperatures than most other aphids. Their injury may first be noticed by scattered wisps of foliage that droop and dry up. The pests work mostly on the small branches at the base of the green foliage.

Spraying with malathion or a nicotine preparation will control them. Such sprays are most effective if applied during the warm part of the day.

Early June is the time to move certain house plants into the garden. Most of them will benefit by the change. Set them in full sun, partial shade or complete shade according to their individual requirements. Geraniums, coleus, poinsettias, azaleas, cacti, certain palms, pomegranates, figs, olives and various kinds of citrus fruits will tolerate full sunlight. Plants that have been growing indoors should be tempered gradually to full sunlight, otherwise they may sunburn. This conditioning may be done by setting them outside in the sun a few hours a day, gradually increasing the length of exposure. Some plants such as fibrous rooted begonias, fuchsias, and cyclamens are best in partial shade and others such as tuberous begonias, rex begonias, dieffenbachias, philodendrons and various forms of English ivy require almost complete shade.

In setting indoor plants into the garden some people remove the plants from the pots as in permanent planting. Certain plants, however, develop such enormous roots over summer that it is difficult to repot them in the fall. In most cases it will be better not to remove the plant from the pot but to "plunge" pot and all into holes or trenches dug in the ground, covering the pot entirely with soil.

It should be remembered that such plants have very restricted root systems and therefore they require more frequent watering than plants growing normally in the beds.

Of course, houseplants growing out-of-doors are exposed to much higher light intensity than they are accustomed to indoors. Consequently, they can utilize more mineral nutrients in the garden than they could indoors. An extra amount of fertilizer should be applied.

ANNOUNCEMENTS

A Party will be given in the Conservatory for new and old members of Denver Botanic Gardens on Thursday, June 2, from 4:00 p.m. to 6:00 p.m. This party offers the opportunity to renew old friendships and become acquainted with new members.

The Garden Club of Denver will present an Art Sale - Floral Display on June 14 and 15 in the Conservatory at Denver Botanic Gardens. Hours 10:00 a.m. to 5:00 p.m. As a special feature, the unusual and interesting artwork, which embraces many phases of handicrafts, will be for sale. There is no charge and the public is welcome. Contributions will be accepted for the benefit of the Conservatory.

The Annual Rose Show of the Denver Rose Society will be held on June 26, from 1:00 p.m. to 5:00 p.m. in the lobby of the First National Bank of Denver. Admission free.

Please note that all meetings scheduled to be held at Botanic Gardens House should be cleared through the engagement calendar with Mrs. Vincent. This is to avoid a possible conflict of such events.

The Library at Botanic Gardens House is now open according to the following schedule. Librarians in attendance are listed: Hours each day: 10:00 a.m. to 3:00 p.m. Monday, Mrs. Neil; Tuesday, Mrs. Hellriegel, Mrs. White; Wednesday, Miss Crissey, Mrs. Wasson; Thursday, Mrs. Wilson; and Saturday, Miss Crissey, Miss Bowers.

Welcome to New Members: Dr. & Mrs. Hewitt Ryan, Dr. & Mrs. Jack Beckner, Dr. Fred Kern, Jr., Mrs. William N. Cox, Mrs. H. G. Whittington, Mrs. William F. Fair, Mrs. Timothy Collins, Mrs. William Kilpatrick,

Mr. & Mrs. Jack Martin, Portia M. Kitchens
Mr. & Mrs. Arthur J. Seifert, Emma M. Beck
Mrs. Donald G. Langsley, Ruth A. McLaughlin
Mr. Warren Longley, Shwayder Bros., Inc.

The complete roster of new members in Denver Botanic Gardens as a result of the membership drive was not available at the deadline date for this month's Newsletter. Therefore, the list will be published in forthcoming issues. Our sincere thanks are expressed to the membership committee for their diligent efforts on behalf of Denver Botanic Gardens.

CALENDAR OF EVENTS June 1966

- | | | | | | |
|-----|------------|--------------------------------------|-----|------------|----------------------------------------|
| 2) | 10:00 a.m. | Gift Shop Workshop | 14) | 10:00 a.m. | Art Sale - Floral Display |
| | 4:00 p.m. | Membership Party in Conservatory | & | to | Garden Club of Denver in |
| | 7:30 p.m. | Orchid Society | 15) | 5:00 p.m. | in Conservatory |
| 3) | 12:00 noon | Civic Garden Club Luncheon & Meeting | 16) | 7:30 p.m. | Dahlia Society |
| 6) | 9:30 a.m. | Gift Shop Committee | 17) | 7:30 p.m. | Botany Club |
| | 7:30 p.m. | The Colorado Open Space Council | 22) | 9:30 a.m. | Garden Club of Denver Flower Arranging |
| 8) | 2:00 p.m. | The Green Thumb Editorial Committee | | | Workshop |
| 9) | 12:00 noon | Silver Spruce Garden Club Luncheon | 24) | 10:00 a.m. | Ikebana International |
| 14) | 10:00 a.m. | Herbarium Study Group | | 7:30 p.m. | Men's Garden Club of Denver |
| 15) | 12:45 p.m. | Carnation Home Makers Club | | | |

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JULY 1966

The Terrace & Garden Tour, sponsored by the Denver Botanic Gardens Guild for the benefit of Denver Botanic Gardens, is scheduled for Wednesday, August 3, 10:00 a.m. to 5:00 p.m.

The nine gardens included in the tours this year have been selected for their outstanding beauty and special features.

The gardens to be shown are listed below with a brief note about their distinctive attractions:

Stanley Wallbank - 825 So. Adams - A large variety of plant material is included in this contemporary garden plan.

Homer Reed - 16 Polo Club Drive - a charming design with bonsai and other oriental accents.

Robert Blanchard - 3333 E. Kentucky - a garden designed in two levels with a waterfall and attractive plantings.

Dr. John Grow - 3390 E. Kentucky - contains fine display of espaliered trees and other unusual material.

Harold Sare - 3433 E. Kentucky - Raised flower beds backed by a curving brick wall.

John M. King - 26 Sunset Drive - A magnificent country estate with vast formal gardens.

Winston Howard - 4860 So. Dahlia - A country garden containing over 300 varieties of shrubs and trees.

Holbrook Mahn - 3800 E. Quincy - features beautiful sun garden with a spectacular view of the mountains.

Bill Lucking - 835 W. Quincy - an immaculate garden grown by a horticultural expert.

A garden expert will be stationed in each garden to answer questions.

Tickets are \$3.00 each. Tickets are available at: The Gift Shop at Denver Botanic Gardens Conservatory, located at the York Street Unit, and at the Colorado Federation of Garden Clubs office, 1556 Emerson Street or by calling

Mrs. Richard Wilson, 424-2742. Checks are payable to: Denver Botanic Gardens. Tax deductible.

Bus transportation will be available from the Denver Botanic Gardens House. Buses will leave at 10:00 a.m. and 1:00 p.m. \$1.00 per person. For reservations call Mrs. James Kilgroe, 237-3874.

Punch and cookies will be served free at the John M. King home, 26 Sunset Drive. Sandwiches will also be available.

In case of rain, the tour will be held the following day.

The Terrace and Garden Tour Chairmen are: General Chairman: Mrs. William McDougal. Ticket Co-Chairmen; Mrs. Richard Wilson, Mrs. Mackintosh Brown. Garden Finding Committee Co-Chairmen; Mrs. Earle Honnen, Mrs. William Russell. Publicity Chairman; Mrs. Thomas Payne. Hostess Chairman; Mrs. James Dyer. Signs and Supplies Chairman; Mrs. David Stone. Refreshments Chairman; Mrs. Loring Brock. Garden Expert Chairman; Mrs. Theodore Washburne. Transportation Chairman; Mrs. James Kilgroe.

ANNOUNCEMENTS

Trips into the foothills and to Mt. Goliath to observe and identify wild flowers will be scheduled at intervals during the summer under the auspices of Denver Botanic Gardens and the Denver Museum of Natural History. For information, call Dr. Brunquist at the museum 322-1808.

No Giftshop Workshop sessions will be conducted during the months of July and August. The next meeting will be held the first Thursday in September.

There are maps available of the rose gardens in City Park and the Denver Botanic Gardens York Street Unit. No charge. May be picked up at Botanic Gardens House and the Denver Museum of Natural History.

Tree Study in City Park. Mimeographed guides for three tours are available

at Botanic Gardens house. No charge.
The guides list and describe the many
interesting tree specimens in the park.

The new Conservatory Tour Program for
the summer is now in effect. Guides will
be present at the conservatory only between
1:00 and 4:00 p.m. daily, Sundays excluded.
Scheduled tours will be offered only at
2:00 p.m. Between the hours of 1:00 p.m.
and 2:00 p.m. (before tour) and 3:00 p.m.
and 4:00 p.m. (or after tour) guides will
offer assistance to visitors at the con-
servatory.

Welcome to New Members: Mrs. Hugh H.
Mcgee, Mrs. McNeil Fiske, Mrs. R. Stevens
Calender, Jr., Mrs. William Russell, Mr. &
Mrs. Gene Warner, Mrs. Carlton M. Dean, Mrs.
John Lunt, Mr. John H. Gaskin, Sr., Mrs.
Emery Eigsti, Mrs. W. Lyle Forbes, Mrs.
David W. Hall, Mrs. Clarence O. Hughes, Mrs.

Bruce Eaton, Mr. & Mrs. Ronalda Kiepe, Mrs.
Wendell A. Tisdell, Mr. & Mrs. William
Bourke, Mrs. Sallie L. Waggner, Mrs.
Harriet Berenbaum, Mrs. Ruth Kulik, Mrs.
R. S. Grier, Mrs. John L. Snead, Mrs. Har-
D. Gilchrist, Dr. Cameron E. Berry, Mr. &
Mrs. Dan Read, Mrs. Lee R. Hill, Mrs. Joh
M. Law, Mr. & Mrs. Paul V. Murray, Mr. &
Mrs. Samuel T. Milliken, Mrs. John J.
Wanner, Mrs. C. F. Skannal, Dr. & Mrs.
William C. Black, Dr. & Mrs. Lloyd V.
Shields, Mr. J. W. Hepburn, Mr. & Mrs. Joh
B. Grow, Jr., Mrs. Roy Jacobson, Mrs. R.
H. Shanahan, Dr. & Mrs. Leo J. DeLauro,
Dr. & Mrs. Don V. Benkendorf, W. Allen
Conklin, Mrs. Don F. Allen, Mr. & Mrs.
William Falkenberg, Mr. & Mrs. Gene Hamby
Mr. & Mrs. Lester R. Woodward, Mrs. T. N.
Jordan, Mr. & Mrs. John N. Dahle, Mrs.
Thomas J. Carson, Mr. & Mrs. Jack S. Dros
Mrs. Anson Mark, Mrs. Frank Thompson, Mrs.
Gerald B. Burton, Mrs. James E. Bye.

CALENDAR OF EVENTS July 1966

- 4) Holiday. House closed
13) 2:00 p.m. The Green Thumb Editorial
 Committee
15) 7:30 p.m. Botany Club
17) 3:30 p.m. Rose Society Outdoor Supper
18) 4:00 p.m. Denver Botanic Gardens Board
 of Trustees

- 21) 7:30 p.m. Dahlia Society
22) 10:00 a.m. Ikebana International
 7:30 p.m. Men's Garden Club of
 Denver
24) 2:00 p.m. Colorado Cactophiles
27) 9:30 a.m. Garden Club of Denver
 Workshop

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AUGUST 1966

GARDENING MEMORANDA

Keep up the "hot war" on insects and mites. These pests have been unusually troublesome this year and they are not likely to slacken their destructive efforts as fall approaches. Watch particularly for spider mites on juniper, spruce and fir trees, roses, spirea, shrubby cinquefoil, native thimbleberry and raspberry and on such flowers as delphinium, phlox and hollyhock.

Aphids often increase their activities during the hot August weather. They can be particularly troublesome on juniper trees, roses, spirea, goldenglow, goldenrod, dahlia, nasturtium, calendula and waterlilies. Spraying with malathion will control both of these pests. A second application about 2 weeks after the first may be necessary to clean up heavy infestations.

Grapevines and their near relatives Virginia creeper, Boston ivy, St. Paul ivy, and Engelmann ivy are very susceptible to leafhopper damage. Hot, dry August weather favors rapid increase of this pest. The foliage of infested vines first shows milky-white streaks. Later the leaves turn brown. On shaking an infested vine, one can see a cloud of tiny white insects fly up. This pest is easily controlled by spraying with DDT.

August is planting time for peonies, oriental poppies and madonna lilies. Irises, which you neglected to plant earlier, may still be planted. If you have some chrysanthemums that you would like to move, do it now. Simply lift the whole clump and set it in the new location with the least possible disturbance of roots or the soil around them.

If your plantings of annuals seem to lack vigor and are not living up to your expectations, try a foliage fertilization with some soluble material such as Ra-pid-gro. This will often produce gratifying results.

Watch for weeds lurking in out-of-the-

way places or hidden in perennial clumps or among shrubs. Pull or dig them out now before they go to seed.

ANNOUNCEMENTS

The Terrace and Garden Tour is scheduled for Wednesday, August 3, 10:00 a.m. to 5:00 p.m. Tickets are \$3.00. Bus transportation will be available from Botanic Gardens House at 10:00 a.m. and 1:00 p.m. at a cost of \$1.00 per person. Check your July Newsletter for the list of gardens included in the tour and for other details.

Denver Botanic Gardens will sponsor a display of water color paintings in the conservatory from August 8 through the 14. These beautiful paintings by Mr. Lee Adams depict tropical fruits and flowers in accurate botanical detail. They have been enthusiastically praised by critics throughout the country and have gained Mr. Adams international recognition.

The artist, a native of Florida, became interested in tropical plant life in his early youth and, later, began depicting it on canvas. From this interest emerged his dedication to his art, which he expresses in this statement: "Limited by a palette of a few carefully selected pigments, with subtle nuances of light and shadow I attempt to transmit to the beholder my own interpretation of what I have seen and felt. The tilt of a petal, the moment of a bird in song, the sunlight glancing from a leaf-these things must become alive. I must paint life into the page!"

The public is invited to view Mr. Adams' paintings. There is no admission charge.

The many friends of Mrs. Hellriegel, who has been a volunteer librarian at Botanic Gardens House for many years, wish to express sympathy to her for the loss of her husband, Arthur, who died recently.

Denver Botanic Gardens extends a cordial welcome to NEW MEMBERS: H. W. Lindenmeier, Mrs. Hugh Hatcher, Mr. & Mrs. Justin East, Mr. & Mrs. Robert M. Ware, Dr. & Mrs. Warren E. Cooper, Mrs. Philip G. Dufford, Dr. & Mrs. Ralph Cotton, Mr. & Mrs. Canton O'Donnell, Jr., Mr. & Mrs. Robert M. Buckland, Mrs. William B. Shepard, Mr. & Mrs. Arthur L. Knott, Mrs. Eleanor Witt, Mrs. Howard Bramley, Mrs. B. E. Bump, Mrs. Charles Parker, Mrs. John Swartz, Mrs. F. Joseph McGarry, Mr. & Mrs. William M. Griffith, Miss Jo Ann Hayes, Mrs. Frances Holland, Jr., Mrs. F. Stuart Howard, Mr. & Mrs. Richard Wohlgenant, Mr. & Mrs. Arthur Zohn, Mrs. T. D. Nevens, Mrs. Patrick Eldredge, Mr. & Mrs. Laird Campbell, Mr. & Mrs. Phillip W. Schoelzel, My Pharmacy, Mrs. Kirby McAlister, Miss Elizabeth Chester, Mr. H. Bissell Carey, Mrs. Richard K. Sommer, Mr. Rowe Rudolph, Sr., Mrs. Adrian de Coninck, Mrs. Robert Pulcipher, Mrs. Dan Simmons,

Mrs. Pat Stout, Mrs. Gerald W. Stewart, Mrs. Nell Rapp, Mrs. Lowell S. Porter, Mrs. David A. Reed, Jr., Dr. & Mrs. Richard M. Hamer, Mr. Joseph J. Couwlier, Mr. & Mrs. H. E. Day, Mrs. Robert Priester, Kate and Julie McKevitt, Mr. & Mrs. Hugh Wheeler, Mr. & Mrs. John W. Jessup, Mr. & Mrs. Richard Woulfe, Mrs. W. E. Mayer, Mrs. C. M. Schrepferman, Mrs. James Turic, Mrs. R. L. Schrepferman, Mrs. Barry W. Frank, Mr. & Mrs. Vester C. Bradley, Jr., Dr. Miles R. Markley, Dr. & Mrs. Robert E. Dean, Dr. & Mrs. Robert P. Stanton, Dr. & Mrs. Cosmo G. MacKenzie, Dr. & Mrs. Theodore Puck, Dr & Mrs. Saul H. Bassow, Jr., Dr. & Mrs. David L. Cowen, Mrs. C. O. Frisbie, Dr. & Mrs. Alan Friedland, Mrs. Robert E. Holmes Jr., Mrs. Philip T. Davis, Mr. & Mrs. Richard Downing, Jr., Dr. & Mrs. David E. Hutchison, Mrs. Charles Vail, Mrs. Conrad O'Connor, James D. Grow, Mr. & Mrs. S. H. Peterson, Mr. & Mrs. J. C. Jeurink

CALENDAR OF EVENTS August 1966

1)	9:30 a.m.	Gift Shop Committee	14)	5:00 p.m.	Rose Society Lawn Supper
2)	7:30 p.m.	Dahlia Society	18)	7:30 p.m.	Dahlia Society
3)	10:00 a.m.) 5:00 p.m.)	Terrace & Garden Tour	19)	7:30 p.m.	Botany Club of Denver
9)	10:00 a.m.	Herbarium Study Group	24)	9:30 a.m.	Garden Club of Denver Workshop
10)	2:00 p.m.	Green Thumb Editorial Committee	26)	10:00 a.m. 7:30 p.m.	Ikebana International Mens' Garden Club of Denver
11)	1:00 p.m.	Washington Park Garden Club Tea	28)	2:00 p.m.	Colorado Cactophiles
14)	9:30 a.m.	National Extension Homemakers' Conference, Tour and Luncheon			

DENVER BOTANIC GARDENS, INC.
909 York Street, Denver, Colorado 80206

<i>Non-Profit Org.</i>
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Denver, Colorado

Green Thumb Newsletter

LAWRENCE A. LONG, President

Dr. Louis B. Martin, Director

DR. A. C. HILDRETH, ~~Consultant~~ Consultant

HELEN M. VINCENT, Editor

DENVER BOTANIC GARDENS, INC.

• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

Conservatory Superintendent, Ernest A. Bibee - 297-2810 Conservatory & Gift Shop - 297-2348

SEPTEMBER 1966

GARDENING MEMORANDA

September is a time when gardeners catch up on work they have been neglecting. Flower seeds that you intended to pick earlier can still be collected from most plants. Even though much of it has already shattered, you can usually find a few stalks that carry some seed.

Tall bearded irises, oriental poppies and perennial phlox are best divided and planted earlier, but this work can still be done this month.

If you have been neglecting to move some chrysanthemums, do it now. Simply dig the whole clump with as little disturbance of the roots as possible, and set it into a hole already made. It doesn't matter if the clump is in full bloom.

This is a good time to make a cleanup of weeds in the lawn. Annual weeds such as Milky Spurge and Purslain will be prevented from scattering their seeds for next year's weed crop. Perennial weeds such as dandelions, chickweed, plantain and clover (if you call it a weed) can be eliminated now so that you can start next year with a clean lawn. There are weed killers on the market that will control all these weeds. There are even bentgrass killers that will worry down the bentgrass in mixed bluegrass-bentgrass lawns, so that the bluegrass can take over.

Crabgrass? There are weed-killers that will kill it now, but after you have lived with it all summer perhaps you had better let the frost kill it and depend on pre-emergence treatment to prevent the seed from germinating next spring. No seed germination - no crabgrass!

September is normal planting time for several perennials. Chief among these are the "Dutch bulbs", tulips, daffodils, hyacinths, crocuses and others less well known. These should be planted as soon as they appear on the market. This is usually about the third week in September. The bulbs should not be kept out of the ground longer than is necessary for their transportation and marketing. They

do not improve on dealers' shelves. If you want to dig and divide an old planting of such bulbs do it now and replant them immediately. The bulbs do not need to be dried before replanting.

Other perennials that can be divided and planted this month are Siberian and spuria irises and peonies. If you would prefer to do the work now rather than in spring, Shasta daisies can be divided this month.

September is a favorite time for planting lawns, whether by sodding or by seeding. Take time to prepare the soil thoroughly.

Keep up the relentless war on weeds, and particularly don't let them go to seed. In fall every plant seems to be hurrying to produce seed before fall freezes cut short its career. At this season even very small specimens of normally tall weeds will mature seed clusters that are barely off the ground. Watch closely for them.

ANNOUNCEMENTS

Please note that the library at Botanic Gardens House will be closed on the following Saturdays during October and November: October 1, 8, 22, and 29; November 5. Our volunteer librarian, Miss Crissey, will be enjoying a vacation during that time and we wish her a very happy holiday.

Ikebana International will present an Ikebana Exhibit (Japanese Flower Arrangements) in the south room of the Conservatory on Saturday and Sunday, September 24 and 25. There will be a variety of beautiful arrangements inspired by the different schools of thought. Saturday hours: 9:00 a.m. to 8:00 p.m. Sunday hours: 9:00 a.m. to 5:30 p.m. Chairman Mrs. William George - 442-7290. The

public is invited. Admission: \$1.00.

The Presidents' Council of Denver will sponsor a Silver Tea in the South Room of the Conservatory on Sunday, September 18, from 2:00 p.m. to 4:00 p.m. Proceeds are for the benefit of Denver Botanic Gardens. The public is cordially invited.

Welcome to New Members: Mrs. David S. Tilden, Mrs. Albert Sellke, Mr. & Mrs. A. Frank Viek, Jr., Mrs. L. N. Richards, Jr., Joy Wilson, Mr. & Mrs. Don Mooney, Dr. & Mrs. Walter E. Meihoff, Mrs. W. G. Sumners, Jr., Mr. & Mrs. Jan J. Wegardt, Mr. & Mrs. Lawrence H. Gill, Mr. & Mrs. E. William Andrews, Mrs. Karl E. Sussman, Mr. & Mrs. Robert W. Rodda, Mr. & Mrs. D. F. Douglas, Mr. & Mrs. A. D. Cottingham, Mrs. J. Michael Farley, Mr. & Mrs. John Lovato, Ruth Hawkins, Mr. & Mrs. James W. Case, Patricia C. Tolle,

H. L. Guard, M. D., Mr. & Mrs. James R. Birrell, Miss Margaret J. Silces, Mrs. Grace M. Vick Roy, Mrs. George M. Mansfield, Mrs. William G. Saunderson, Mrs. William W. Hubbell, Mrs. Paul West, Mrs. Eugene D. Hill, Jr., Mrs. William G Berge, Mrs. Ralph L. Schwartz, Mrs. Richard Binner, Mrs. Sam S. Bloom, Mrs. Harry Bowles, Carolyn Fuller, Ray Howe, Mrs. Marion F. Jones, Mrs. Nevin Palley, Mrs. Werner M. Gross, Mrs. Edwin G. Alexander, Mrs. D. D. Hanna, Mr. & Mrs. George K. Hayden, Mr. & Mrs. Robert M. O'Donnell, Mr. & Mrs. Shirley A. Johnson Jr., Mr. & Mrs. William W. Argall, Mr. & Mrs. Joseph G. Wagner, H. H. Nees, Mrs. Park Williams, Edward F. Hill, Mrs. Christopher Dobbins, Mrs. Carl C. Madsen Mr. L. E. von Gunten, Mrs. L. Stanley Blue, Mr. & Mrs. Earl Kenney, Mr. & Mrs. A. Paul Shermack, Mrs. Charles S. Thomas

CALENDAR OF EVENTS
Month of September

- | | | |
|-----|------------|-------------------------------------|
| 1) | 10:00 a.m. | Gift Shop Workshop |
| | 7:30 p.m. | Orchid Society |
| 5) | Holiday | House Closed |
| 7) | 12:00 noon | Colorado Garden Show Board meeting |
| 8) | 7:30 p.m. | Rose Society |
| 14) | 10:00 a.m. | Herbarium Study Group |
| | 2:00 p.m. | The Green Thumb Editorial Committee |
| 15) | 10:00 a.m. | Around the Seasons |
| | 7:30 p.m. | Dahlia Society |
| 16) | 7:30 p.m. | Botany Club |
| 18) | 2:00 p.m.- | Presidents' Council of |
| | 4:00 p.m. | Denver Tea in Conservatory |

- | | | |
|-----|------------|------------------------------------------|
| 19) | 4:00 p.m. | Denver Botanic Gardens Board of Trustees |
| 20) | 1:00 p.m. | Rocky Mountain African Violet Council |
| 22) | 2:00 p.m. | Civic Garden Club - Past Presidents Tea |
| 23) | 9:00 a.m.- | Ikebana Exhibit |
| | 8:00 p.m. | |
| 24) | 9:00 a.m.- | Ikebana Exhibit |
| | 5:30 p.m. | |
| 28) | 9:30 a.m. | Garden Club of Denver Workshop |

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Dr. Louis B. Martin, Director

HELEN M. VINCENT, Editor

DENVER BOTANIC GARDENS, INC.

• 909 YORK

• TELEPHONE: 297-2428 or 297-2632

OCTOBER 1966

GARDENING MEMORANDA

If your garden has thus far escaped damaging frost you may expect this annual event anytime now. Prepare for it at once. Dig out pots of house plants that you have been summering out-of-doors by plunging the pots in soil. Clean the pots and repot any plants that are badly root-bound. Trim the tops to the desired size and place the plants in the home according to their light and temperature requirements.

You may want to take up some of the tender perennials used as bedding plants such as geranium, coleus, fibrous-root begonia and fuchsia to grow as house plants over winter. Be certain that the pots are large enough to hold the roots without crowding. Use a porous potting soil. Cut back both the roots and tops severely and let the plant form a new top. Keep the soil moist but do not over-water.

Gardeners sometimes dig annuals from beds and borders in October, pot them and bring them indoors to continue growth and flowering. With true annual plants such as marigold, zinnia, celosia, portulaca, larkspur, China aster, ageratum and annual phlox, such attempts are usually disappointing. Much of the root system is destroyed in the process and will not adequately support the plant. Then too, it is too near the end of their life cycle to expect full recovery from transplanting shock.

With certain tender perennials ordinarily treated as annuals the results are somewhat better. Large tops of petunias and snapdragons may be cut back somewhat and may eventually make satisfactory plants. In general, however, it is not worth the effort.

Cuttings of various tender perennials should be taken now if you wish to propagate them for next year's beds and borders. Only a few can be accommodated in the ordinary home but home greenhouses can produce an abundance of plants of your favorite varieties.

Set out "bulbs" of tulips, daffodils, hyacinth, crocus, grape hyacinth and squill at once. These bulbs do not improve in the dealers' bins.

Try potting a few of these bulbs for forcing during the winter. Use ordinary flower pots or bulb pans and a porous soil. A six-inch flower pot will hold five or six tulip bulbs. Set bulbs in the pot so that their "noses" (tops) are about a half inch below the rim of the pot. Water thoroughly

For plunging the pots, select a cool spot - perhaps on the north side of a building but away from the wall of a heated basement. Dig a pit or trench about a foot deep. Fill in about 3 inches of coarse sand or fine gravel. Stand the pots on this layer and fill between the pots and cover them with soil or with peat or leaf-mold, then water. When the surface begins to freeze, cover with a few inches of peat or leafmold.

Within about two months you can begin forcing. Remove some of the pots and keep them in a cool place where the temperature does not go above 50 degrees and where the light is not intense. After the tops have made a few inches of growth bring the pots into a light place where the temperature is not above 70 degrees until the buds begin to open. During the flowering period you will want to keep them where you can see them, probably at living room temperature. The flowers will last longer if the plants are placed in a cool room at night.

Sometime soon you will most likely have a frost that will kill the tender annuals such as zinnias, portulacas and celosias. Do not get panicky and rip out all annuals from your beds and borders. Several annuals such as petunias, marigolds, snapdragons, calendulas and nierembergias will endure rather severe frosts if they are gradually tempered to cold. Often for a month after the first frost they will brighten the fall landscape if given a chance.

ANNOUNCEMENTS

The library at Botanic Gardens House will be closed on the following Saturdays during October and November: October 1, 8, 15, 22, and 29; November 5.

Mark your calendar for the Annual African Violet Sale sponsored by the Rocky Mountain African Violet Council. This is your ideal opportunity to buy your new plants because all of the material is choice. A portion of the proceeds benefits Denver Botanic Gardens. Sale will be held at Botanic Gardens House, 9:00 a.m. to 4:00 p.m., Saturday, October 15.

The following books of interest are now available in the library: Gertrude Foster, Herbs for Every Garden; Molly Price, The Iris Book, both gifts from Mrs. Bern Neil. Also, Louisa Ward Arps and Elinor Eppich

Kingery, High Country Names, gift of Mrs. Ed Honnen.

HERBARIUM STUDY COMMITTEE - Any persons interested in learning to identify plants are welcome to attend a meeting. A short instruction period will be held from 10-10:30 a.m. on the second Tuesday of every month at Botanic Gardens House.

Tour Guides Needed: More guides are needed to expand the program to meet the public needs. Tours of duty are 4 hours either morning, afternoon or Friday evening. No experience necessary. Instruction is provided. If interested, call Mrs. Graham Morrison, 424-0706 or 297-2348 and leave your name and telephone number.

Due to lack of space, Welcome to New Members will be listed next month.

CALENDAR OF EVENTS Month of October

- | | | | | | |
|-----|------------|---------------------------------------------------------------------|-----|------------|-----------------------------------------------------------------------|
| 3) | 9:30 a.m. | Gift Shop Committee | 15) | 9:00 a.m. | African Violet Society Plant Sale |
| 6) | 10:00 a.m. | Gift Shop Workshop | 19) | 12:45 p.m. | Civic Garden Club, Division B. Meeting - Luncheon - Conservatory Tour |
| 7) | 7:30 p.m. | Orchid Society in Conservatory | 20) | 10:00 a.m. | Around the Seasons Club |
| 8) | | Orchid Show in Conservatory | | 7:30 p.m. | Dahlia Society |
| 9) | | Orchid Show in Conservatory | 21) | 7:30 p.m. | Botany Club |
| 10) | 10:00 a.m. | Herbarium Study Group | 23) | 2:00 p.m. | Colorado Cactophiles |
| | 2:00 p.m. | Green Thumb Editorial Committee | 28) | 10:00 a.m. | Ikebana International Men's Garden Club of Denver |
| 12) | 9:30 a.m. | Denver Botanic Gardens Guild | | 7:30 p.m. | |
| | 4:00 p.m. | Associates of Denver Botanic Gardens Annual Meeting in Conservatory | | | |
| 13) | 7:30 p.m. | Denver Rose Society | | | |

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DOCUMENTARY FILE Green Thumb Newsletter

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DR. A. C. HILDRETH, Director (Emeritus)

HELEN M. VINCENT, Editor

Dr. Louis B. Martin, Director

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Conservatory Superintendent, Ernest A. Bibee - 297-2810 Conservatory & Gift Shop - 297-2348

NOVEMBER 1966

GARDENING MEMORANDA

November is the time to prepare the garden for winter. Proper measures taken now may make the difference between success and failure of a planting.

Protect Tree Trunks: Trunks of all deciduous trees which you planted this spring should be wrapped now for winter protection. Also trunks of all young smooth-barked trees such as mountain ash, redbud, cherry, linden and maple should be shaded to protect them from winter sunshine, especially on the south and west sides. Low-angled winter sun striking on such trees may cause sunscald of the bark.

The neatest and most satisfactory way to shade or protect tree trunks over winter is by wrapping them with a special paper wrap available at garden supply stores. Such wrappings may be taken off in spring or left on from year to year. They not only provide shade but prevent drying out of the bark and give some protection from scratching cats, gnawing squirrels and young children.

Watering: Keep the lawn well watered during November so that the grass will stay green as long as possible. This will improve the appearance and keep the grass from drying out during dry, windy fall weather. Also make a note to water the lawn occasionally during warm spells in winter and early spring.

Put your trees and shrubs to bed for the winter with wet feet. In late November water all trees heavily so that the water will penetrate the soil deeply. This is particularly important for evergreens and birches and for all trees and shrubs that were planted this year.

November watering of perennials, particularly those transplanted in late summer or fall, will help prevent winter losses.

Leaves: Rake up leaves from the lawn to prevent their packing down and injuring the grass. It is hoped that you have a compost pile where you can save the leaves rather than send them to the dump.

Evergreens: If your upright junipers were broken or splayed out of shape by the October snow, prune off the broken branches and tie the wayward branches back in place, before another heavy snow causes further damage. Twists are fine for the small tying jobs.

A LOOK AHEAD FOR 1967

Here's your invitation to join the Los Angeles Botanical Gardens Guided Tour in mid-April 1967. The Tour is open to members of the Denver Botanic Gardens only. Just three days and two nights can be richly rewarding--visiting nationally recognized botanic gardens and arboreta of Southern California. At an approximate expense of \$200.00 per person, to include lodging, meals and travel, you will enjoy a colorful real life adventure.

The profile Tour through the southland will include: Los Angeles State and County Arboretum, Arcadia (Introduced flowering trees; a flower show); Descanso Gardens, La Canada (Camellias, sip Jasmine tea in a Japanese Tea Garden); Huntington Botanic Gardens, San Marino (Library, Art Gallery, cactus and palm collections); Rancho Santa Ana Botanic Garden, Claremont (Native plant of California in full bloom).

Together with the educational aspect of this Tour, you will visit: the new Los Angeles County Art Museum; the new Los Angeles Music Center; the Wilshire Boulevard stores of exceptional quality; the original Farmer's Market for lunch; and Padua Hills, renowned for its Mexican cuisine and its after dinner Mexican theater.

Now, this announcement is for a 'show of hands' of probable Tour members. Is there sufficient interest and intent in such a tour? We really must know by the end of November, in order to complete the plans. Please contact Mrs. Alice Willis at the Denver Botanic Gardens office as soon as possible if you think you will be going

with us. Thank you.

1967 Colorado Garden and Home Show. Note the earlier dates: Saturday, February 4 through Sunday, February 12. This is the 8th annual show and will be held at the Denver Coliseum and Western Buildings.

Theme this year will be "Gardens from Around the World", with distinctively designed gardens created by leading regional firms.

Many new and interesting product and service displays will be combined with the theme displays. Mr. Haughton says: "We will follow the proven pattern of producing a show which offers the latest in garden and home features, special theme exhibits and a competitive flower show, which we feel

follows the interests of the Colorado public." Attendance is expected to exceed 75,000. The Colorado Garden and Home Show is sponsored by Denver Botanic Gardens, Inc

November 30, 1966, 8:00 p.m. First Lecture in the 1966-67 Series at Botanic Gardens House. Jack Fason, Authority on Biological Photography will discuss "Techniques of Biological Photography" with illustrations. Admission \$1.00. Seating capacity limited to 60. Tickets available at Denver Botanic Gardens House.

Herb Vinegar is again available from the Denver Botanic Gardens Guild. This gourmet treat sells for \$1.00 per pint. Hurry and place your order with Mrs. Ferguson at 798-7388. Pick up at Botanic Gardens House on December 14.

CALENDAR OF EVENTS Month of November

- | | | | | | |
|-----|------------|------------------------------------------------------------------|-----|------------|-----------------------------------------------------------------------------------------------------|
| 3) | 10:00 a.m. | Gift Shop Workshop | 17) | 7:30 p.m. | Dahlia Society (Date may be changed) |
| | 7:30 p.m. | Orchid Society | 18) | 8:00 a.m. | Colorado Parks Dept.
Annual meeting (Botanic
Gardens House & Conservatory) |
| 4) | 11:15 a.m. | Civic Garden Board Meeting
followed by Luncheon | 21) | 4:00 p.m. | Denver Botanic Gardens
Board |
| 7) | 9:30 a.m. | Gift Shop Committee | 24) | | House Closed - Thanksgiving Day |
| | 7:30 p.m. | Swingle Study Group | 25) | 10:00 a.m. | Ikebana International
Men's Garden Club of
Denver |
| 8) | | House Closed - Election Day | 27) | 2:00 p.m. | Colorado Cactophiles |
| 9) | 9:30 a.m. | Denver Botanic Gardens Guild | 30) | 8:00 p.m. | First Lecture of 1966-67
Series - Jack Fason -
Close-up Photography of Biological
Subjects |
| 11) | | House Closed - Veteran's Day | | | |
| 12) | 1:00 p.m. | Conservatory South Room -
African Violet Council of
Judges | | | |
| 15) | 12:30 p.m. | Rocky Mountain African Violet
Council | | | |
| 17) | 10:00 a.m. | Around the Seasons Club | | | |
| | 8:00 a.m. | Conservatory - Colorado Parks
Dept. Annual Meeting | | | |

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DECEMBER 1966

GARDENING TIPS BY AN EXPERIENCED GARDENER

October 13 was a nice warm day for a ride to see the fall colors. We drove through Washington and Cheesman Parks and found the colors "out of this world". The American linden was never as colorful as this year and the hawthorn and American elm were a sight to behold. I captured the beautiful colors on slides which turned out well. Despite a few clouds in the sky this day, there were no indications of a storm. Twelve hours later the picture was in black in white. It snowed heavily and the following morning, the beautiful trees, which were in full leaf, began to sag under the moisture-laden cover. This seems to happen here every five or six years.

There was a lot of damage to the tree limbs. As this is being written, I hope that most of the limbs and brush have been cleaned up. However, the trimming and repair of the trees will go on for months in order to get them back in shape. The most important thing is to get all the loose and hanging branches down, for they are a hazard. Some limbs on large trees may be just split and may be saved by cabling or bolting to the main trunk. Other trees were damaged so badly that they will have to be removed. Chinese elm suffered the most damage and the maples were badly broken. Honey locust. European linden, oak and cottonwood were not as severely affected. If you are not familiar with tree trimming, it is best to get a reliable tree surgeon to perform any needed repair. In most cases, with proper care, the trees will eventually recover.

All trees (including evergreens) perennials, roses and bulbs like to go into the winter with wet feet. This is a good time of the year to check on the moisture in the ground. The soil should be moist fairly deep so that, if we have a prolonged dry spell, the dryness will be only on the surface and of little consequence.

Dry lawns should be given a thorough watering before the ground freezes. Peonies need considerable moisture in the fall for successful development of new buds. They have deep roots and therefore require deep watering to prevent "blind" flower buds. It is not too late to

give peonies a feeding of phosphate and potash.

Tulip bulbs need moisture in the fall and winter when they make most of their root growth. It is a mistake to plant tulips on the south side of a building. A few warm days in the spring will cause them to grow above the soil and the almost inevitable freeze will nip the tender shoots. If you do have tulips planted south of or close to a building, keep the beds wet. Late in the winter, mulch them with leaf or peat mold, two to three inches in depth. This practice is also applicable to other beds after the ground is frozen. This will help to provide a longer blooming period.

Some plants need protection from the winter sun and the drying winds prevalent in this area. Almost all perennial plants are considered hardy here. Creeping phlox, shasta daisy and primrose need a little protection. Scatter a few leaves over these plants or, even better, some evergreen boughs just to keep the wind and sun from burning the foliage. A light mulch over the perennial beds will help to conserve the moisture. Don't let your perennials go into the winter with dry feet.

Some of the shrubs also need winter protection. Mahonia aquifolium, if planted on the south or west, and pyracantha should be protected. Some of the newly planted trees and trees such as the linden, mountain ash, hard maple and birch require protection. Their trunks can be wrapped with a tape commercially available.

Roses should be mounded with soil around the base to keep the buds from drying out. (For complete winter rose care get The Green Thumb Rose Manual by Clyde E. Learned.)

ANNOUNCEMENTS

A street address has been assigned to the Boettcher Memorial Conservatory: 1005 York St., Denver, Colo. 80206. Please use it on all mail intended for Mr. Bibee and the Gift Shop. This will facilitate delivery.

Correction: To order herb vinegar, call Mrs.

Mrs. Ferguson at 798-3788. The telephone number was given incorrectly in the November Newsletter.

SECOND NOTICE: LOS ANGELES BOTANIC GARDENS TOUR

Coming soon, by mail, will be an information bulletin giving details about our planned trip to Los Angeles to tour outstanding botanic gardens and arboreta. We can tell you that the dates are set: Friday, Saturday and Sunday, April 14, 15 and 16. Please mark these dates now and when you receive the Special Tour Bulletin, contact Mrs. Alice Willis at Botanic Gardens House and place your name on the Tour list. Remember: this could be a Christmas gift to someone in the family.

Christmas Tree Trimming Party. Members of the Associates of Denver Botanic Gardens and their

families will meet at Boettcher Memorial Conservatory the evening of December 8 to decorate the building and trim a tree. An old-fashioned get-together is planned for stringing popcorn and cranberries and making door swags and other decorations. Refreshments will be served, so bake a batch of cookies and join the party. The South Room will be open at 6:30 p.m.

Instructions for Conservatory Tour Guides will be given in the Conservatory each Wednesday morning from 10:00 a.m. to 12:00 noon and each Friday evening from 7:30 p.m. to 9:00 p.m. Telephone: 297-2348 for further information.

CALENDAR OF EVENTS

Month of December

(Unless Otherwise Indicated These Are House Meetings)

1)	10:00 a.m.	Giftshop Workshop - Main Room	7)	1:00 p.m.	Conservatory Guides Meeting - Conservatory
	7:30 p.m.	Orchid Society - Main Room	8)	7:30 p.m.	Public Service Co. Group-Main R.
2)	12:00 noon	Civic Garden Club, Luncheon- Main & Dining Room	12)	7:30 p.m.	" " " " "
	7:30 p.m.	Dahlia Society - Main Room	13)	10:00 a.m.	Herbarium Study Group - 2nd Fl.
5)	9:30 a.m.	Gift Shop Committee - Dining R.		2:00 p.m.	Green Thumb Edit. Committee - Dining Room
	6:30 p.m.	Plains Conservation Center Annual Meeting - Conservatory	15)	10:00 a.m.	Around the Seasons Meeting- Holiday Buffet - Main & Dining
	7:30 p.m.	Swingle Study Group-Dining R.	16)	7:30 p.m.	Botany Club - Main Room
6)	7:30 p.m.	Open Space Council - Main R.	18)	2:00 p.m.	Colorado Cactophiles - Main R.
7)	9:00 a.m.	Public Service Co. Group - Main	26)		House Closed Because Christmas Falls on Sunday
		Denver Botanic Gardens Guild (Christmas Garlands)			

DENVER BOTANIC GARDENS, INC.

909 York Street, Denver, Colorado 80206

Non-Profit Org.

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